CEMBER 1955 VOLUME I • NUMBER 12

CONSTRUCTION REVIEW

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- *Starts*
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ESTIMATING DEMAND FOR FABRICATED STRUCTURAL STEEL

VOLUNTARY MORTGAGE CREDIT PROGRAM

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At a Glance

CONSTRUCTION ACTIVITY IN NOVEMBER--Outlays for new construction declined seasonally in November to $3.6 billion, but set a new record for the month, 7 percent above the November 1954 total. Private activity was off 5 percent from October, as residential building continued to reflect the recent declines in housing starts; and public construction outlays dropped by 16 percent. Private industrial building and office building reached new monthly peaks, however, and highway construction and sewer and water work were at an alltime November high. During the first 11 months of this year, new construction expenditures amounted to $38.9 billion, exceeding last year's 12-month total of $37.6 billion and virtually assuring a new annual record of $42 billion for 1955.

HOUSING STARTS IN OCTOBER--Nonfarm housing starts declined seasonally in October, by 5 percent, to 107,000--second only to the record of 110,700 for the month, set in 1954. The September-October decline was shared by all sections of the country, but was pronounced only in the North Central and Southern regions. Private starts in October (106,600) were at a seasonally adjusted annual rate of 1,242,000, or about the same as the September rate. For the first 10 months, the 1955 figure (1,161,300 private and public units) was within 4 percent of the 1950 record.

FHA-VA ACTIVITY IN OCTOBER--Nonfarm housing begun under the FHA program declined almost a fourth in October, but VA starts rose by 4 percent. Although Government-assisted starts as a whole declined slightly more than total private housing starts, the ratio of FHA-VA assisted units to total private starts (51 percent) was virtually the same as in September. Both applications for FHA insurance and requests for VA appraisals continued to decline in October, reaching the lowest levels since November 1953 and April 1954, respectively. This may reflect tighter credit conditions, in addition to seasonal influences, and augurs declines in Government-assisted starts in future months.

NONFARM MORTGAGES IN SEPTEMBER--The value of nonfarm mortgages recorded totaled $2.5 billion in September, down seasonally (about 6 percent) from the alltime monthly high in August. Although all types of lenders shared in the August-September decline, the greatest decrease (11 percent) was registered by savings and loan associations, partly reflecting the mid-September curb on member borrowing from district Home Loan Banks for mortgage lending. (See page 50, October 1955 Construction Review.) During the first 9 months of this year, recordings totaled $21.6 billion--32 percent above the corresponding 1954 figure. Gains ranged from 18 percent for individual lenders to 37 percent for commercial banks; financing by savings and loan associations was up 36 percent.

BUILDING-PERMIT ACTIVITY IN OCTOBER--Permit valuations for all major types of building construction, except industrial buildings, stores, and additions, alterations, and repair work, declined in October for the second successive month. Total valuations, however, were 4 percent higher this October than a year earlier. For the first 10 months of 1955, permit valuations amounted to $16.5 billion, almost a fifth above the January-October 1954 total. New housing accounted for nearly three-fourths of the gain.

PUBLIC CONTRACT AWARDS IN SEPTEMBER--The total value of contract awards for public construction rose slightly in September, primarily because of increases in most types of federally owned work. State and local award values declined for all major types of construction except educational and hospital building, and for sewerage systems. The Federal total for the first 9 months of 1955 ($1 billion) was 3 percent below a year earlier, whereas the State and local total ($5.6 billion) was up 8 percent, mostly because of increased awards for highways and utilities.

CONTRACTS AWARDED IN THE 37 EASTERN STATES IN OCTOBER--The $1.9 billion of construction contracts awarded in October in the 37 States east of the Rocky

Mountains was 8 percent below September and 5 percent below October 1954. October marks the first month in 1955 showing a lower level of award values compared with the same month in 1954. All major types of construction shared in the September-October decrease, except residential building, which had declined significantly in the preceding month. Contract values for the first 10 months of 1955, at $20 billion, were the highest on record for the January-October period, and exceeded the total for the corresponding months of 1954 by 22 percent.

CONSTRUCTION COSTS IN OCTOBER--Construction costs during October showed the same moderately upward tendencies which have been observed throughout 1955, according to the Department of Commerce Composite Cost Index. The October index, at 126.9 percent of the 1947-49 average, set a new record and was 4 percent above a year earlier.

WHOLESALE PRICES OF BUILDING MATERIALS IN OCTOBER--The wholesale price index for building materials advanced a fraction of a point in October, to a new peak of 128.7, continuing an almost steady rise since midsummer a year ago. The index this October was almost 6 percent above October 1954. Metal products, largely reflecting recent advances in prices of copper, steel, and aluminum, were responsible for more than 40 percent of the September-October increase; house paint, all classes of lumber except Douglas fir, and most nonmetallic minerals accounted for the remainder. These advances were partially offset by seasonal decreases for some items of Douglas fir lumber, metal doors, and asphalt roofing.

CONSTRUCTION MATERIALS OUTPUT IN SEPTEMBER--September 1955 broke all previous postwar monthly records of output for clay construction products and set postwar highs for the month for output of lumber and wood products, Portland cement, iron and steel products, and heating and plumbing equipment. Millwork output rose slightly over August and was near record levels. The index for paint, varnish, and lacquer declined less than is usual in September and was second only to the 1950 record for the month. The asphalt products index, which fluctuates more from month to month than that of other groups of construction materials, dropped sharply from August and was 12 percent lower than in September 1954.

Output of gypsum products in the third quarter of 1955 set a new quarterly record. Although the index for plumbing fixtures in the third quarter was below that for previous quarters of 1955, it was almost equal to the 1950 postwar peak for the quarter.

CONTRACT CONSTRUCTION EMPLOYMENT IN OCTOBER--Employment on contract construction declined a little more than usual in October because of colder weather and the New England floods. The 2,691,000 workers on the job this October slightly exceeded the October 1954 total. State data available through September show that in a majority of States employment in September 1955 was greater than a year earlier. In 2 of the 8 States reporting more than 100,000 contract construction workers--Illinois and Michigan--employment was below the October 1954 level, by 3 percent and 7 percent, respectively. New York and Ohio showed little change, whereas Texas, New Jersey, Pennsylvania, and California reported over-the-year gains of 6 to 10 percent.

HOURS AND EARNINGS IN SEPTEMBER--Weekly earnings in contract construction reached a new peak of $101.13 in September--$2.19 above their previous maximum of last July and $7.29 higher than in September 1954. The August-September increase, as well as the over-the-year gain, was due to a longer workweek and higher hourly earnings in both building and nonbuilding construction and among most of the special trades. Hourly earnings for the industry as a whole, which averaged $2.62 in September 1955, also set a new record, and were 7 cents above the September 1954 average. The average workweek, this September at 38.6 hours, was longer by 1.8 hours than a year earlier.

The Voluntary Home Mortgage Credit Program

ARTHUR W. VINER*

The Housing Act of 1954 brought into existence a new and unusual kind of program for the housing field. This new program, the Voluntary Home Mortgage Credit Program (VHMCP), was proposed by the Life Insurance Association of America and the American Life Convention. They were supported by the other trade associations representing mortgage lending institutions[1] and by the National Association of Real Estate Boards, the National Association of Home Builders and the National Retail Lumber Dealers Association. When Congress incorporated the proposal in the act, as Title VI, it created a means of reducing the need for direct mortgage lending by the Federal Government.

During recent years, the scope of Government activity in the mortgage field had increased through the Federal National Mortgage Association and the direct-loan program of the Veterans Administration. This expansion was viewed by private lending institutions as an undesirable, long-range influence on the mortgage market. The sponsors of the VHMCP recognized that the growth of Government lending activity came originally from the failure of private lenders to make available FHA-insured and VA-guaranteed home loans on reasonable terms to some sectors of the population. Mortgage investment funds traditionally have been concentrated in large cities, so that fully qualified borrowers in small and remote communities had been unable to obtain FHA and VA loans from private lenders on comparable terms. In addition, members of minority groups had been confronted with the same situation even in the largest cities.

In the belief that the best way to stress reliance upon private rather than Government lending activities was to offer private financing in remote areas and small communities and to members of minority groups, the Voluntary Home Mortgage Credit Program was proposed as a mechanism for encouraging private lenders to rechannel a part of their available mortgage investment funds from areas of relative plenty to areas of need. When the Housing Act of 1954 was passed, the sponsors of VHMCP gained the support of the Administration and the Congress for this novel experiment.

Policies and Organization

The basic machinery of the VHMCP is that of a nationwide mortgage clearing house. It is designed to bring together potential borrowers who are unable to obtain FHA or VA financing from local sources with lending institutions all over the country which have indicated willingness to lend in the specific programs and places covered by the VHMCP.

The VHMCP has a committee form of organization. At the top is the National Committee which determines policies, establishes procedures, and reviews the operations of the program. The chairman of the National Committee is the Administrator of the Housing and Home Finance Agency, the only voting member of any of the committees who is a Government official. The voting membership of the National Committee, in addition to the chairman, consists of 2 representatives of each of the 5 principal types of mortgage lending institutions, of the National Association of Real Estate Boards, and of the National Association of Home Builders. Each of these members, upon the recommendation of his trade association, is appointed by the HHFA Administrator and serves voluntarily without compensation. Advisory members from Government agencies involved in the field of mortgage finance are also appointed to the National and Regional Committees.

The Regional Committees, of which there are 16, are made up of similar groups of representatives. Each Regional Committee elects its own chairman from among its members. The Regional Committees are the operating committees, charged with carrying out the policies set by the National Committee.

Each committee has a small staff, headed by an Executive Secretary, a Government official appointed outside the competitive service by the HHFA Administrator upon the recommendation of committee members. The Executive Secretary of the National Committee is charged with the admini-

* Executive Secretary of the National Committee of the Voluntary Home Mortgage Credit Program.

[1] National Association of Mutual Savings Banks, United States Savings and Loan League, National Savings and Loan League, American Bankers Association, and the Mortgage Bankers Association of America.

stration of the program. The Executive Secretaries of the Regional Committees carry on the operations of the program in their regions.

Operating Procedures

All applicants to the VHMCP for assistance in obtaining home loans must certify that they have been denied loans by two local or reasonably accessible lending institutions. In addition, the National Committee has set certain standards of eligibility for assistance under the program. The program covers only FHA-insured or VA-guaranteed mortgages on new or existing housing. No assistance is rendered in refinancing existing mortgages, or in financing farms or commercial properties, hotels, boarding houses, or summer homes. Assistance is rendered in obtaining loans on 1-to-4-family, owner-occupied dwellings only, except for members of minority groups, to whom aid is given also for financing rental and cooperative housing.

Except for members of minority groups, specific area limitations have been imposed, which can be revised upon the recommendation of the Regional Committees. All places eligible for Veterans Administration direct loans are eligible for VHMCP assistance, as well as other communities of fewer than 25,000 population where financing facilities are deemed inadequate.

Exceptions to these area restrictions are made only for applicants whose homes have been destroyed in flood disasters, and for persons or firms who have received commitments from the Federal National Mortgage Association under its special assistance function.[2]

Applications for assistance may be submitted by individuals or builders, and may be for loans on proposed or existing houses. These applications are then referred by the Regional Committee staffs to lending institutions which have indicated that they will make loans in the county where the applicant's property is located.

All loans are made by private financial institutions in accordance with their own lending standards. Loans are negotiated directly by the lenders with the borrowers. No credit screening or underwriting is done by VHMCP; it merely brings the two principals together.

A county-by-county roster of participating lending institutions is maintained in each VHMCP Regional Office. Applications are referred in rotation, so that no lender will receive more than his share of applications. Priority is given in the referral process to local lenders participating in the Program. Applications are referred successively to lenders on the roster until they have been placed, or until every reasonable chance of placement has been explored.

Builders' applications for assistance in financing 20-or-more unit projects for minority-group or interracial occupancy are referred simultaneously to 3 or more lenders to expedite placement. These referrals are made under instructions from the Executive Secretary of the National Committee to prevent the overburdening of any one lender.

Because one of the primary purposes of the Voluntary Home Mortgage Credit Program is to reduce direct lending by Government agencies, the Veterans Administration agreed at the outset to refer all VA direct-loan applicants to the VHMCP's Regional Committees. These applicants are supplied with VHMCP application forms by the VA, and are informed that they must apply to the VHMCP before they can certify that private financing is unavailable to them and thus qualify for consideration under the direct-loan program. After receiving such an application, the VHMCP is given 45 days in which to obtain a commitment from a private lending institution. If successful placement is not accomplished by the VHMCP within this period, the VA is informed immediately, and the veteran is advised by the VA that he may apply for a direct loan.

Under a recent agreement, the Federal National Mortgage Association advises all who obtain commitment contracts for loans under FNMA's special-assistance function that they may apply to the VHMCP in the hope of obtaining more attractive terms from private lenders. The FNMA special-

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[2] Under its special assistance function, the FNMA may, under certain conditions, make advance commitments to purchase FHA-insured mortgages on special housing programs; such as, for example, mortgages for families displaced under an urban renewal program, and mortgages on housing built for the armed services.

assistance function has not yet been extensively used, but it is expected to become more active, particularly as the Urban Renewal Program gains momentum and with the undertaking of new military housing projects. It will probably be concerned principally with large projects.

Referrals to the VHMCP are arising not only from Government sources, but also from private individuals and groups. In the early months of operation, the bulk of applications were referred under the VA direct-loan program, but at present a large proportion of the applications come directly to VHMCP Committee offices from individual applicants and from builders for Government-assisted (FHA and VA) mortgages. Banks, real estate brokers, attorneys on the approved lists of title companies, builders, and lumber dealers are important sources of individual applications. Most builders' project applications have been for assistance in financing sales housing available to members of minority groups.

Growth of the VHMCP

The Voluntary Home Mortgage Credit Program has been more successful than anticipated by many, owing to the resolution of the private lending institutions to move aggressively toward handling as many sound FHA and VA loans as possible in areas remote from their normal region of operations. The program went into full operation in March 1955. By November 15, 24,027 applications for assistance had been received. Of these, 7,931 had resulted in the placement of loans aggregating over $65 million, and 5,114 were still in process. The remainder (8,663) had been turned down or withdrawn. So far, the VHMCP has a perfect record in the placement of builders' applications for assistance in financing developments available to members of minority groups, several of which are interracial projects. Almost 40 percent of the applications from individuals for which processing has been completed have resulted in the placement of loans.

This record is particularly impressive considering the fact that no screening of the applicants' credit or of the properties they wish to finance is done by the Regional Committees. It is even more important in view of the fact that the VHMCP is a residual program, accepting applications only from those who have been unable to obtain FHA-insured or VA-guaranteed loans locally.

The most significant fact, however, is that just a year ago when mortgage money was more plentiful, few lending institutions were making this type of loan. It is costly and time-consuming for lending institutions or their mortgage loan correspondents to inspect properties up to 500 miles from their offices. Under the VHMC Program, one mortgage banker in Minneapolis is covering a territory extending to the Missouri River in the Dakotas. Another, located in Spokane, Wash., is covering most of eastern Washington, the 10 northern counties of Idaho, and most of western Montana. A representative of a large insurance company is covering the northeastern tip of New York State from his office in Buffalo. There are numerous examples of lenders whose operations now cover entire States when formerly they operated only in the major cities.

The lending patterns that are emerging for small places as the program expands are in considerable contrast with urban experience. Of the loans placed under the program, 59 percent were for existing houses. Small towns contributed relatively much less to the postwar homebuilding boom than did large city areas. In 40 percent of the cases, loan amounts were for less than $8,000, and only 22 percent of the loans exceeded $10,000. All but a few loans represented loan-to-value ratios in excess of 90 percent, and almost half were 100-percent loans. The gross family income of the successful applicants has been quite evenly distributed among the $3,000-$3,999, $4,000-$4,999, and $5,000-and-over brackets, with a slight peak in the $4,000-$4,999 class.

When the Voluntary Home Mortgage Credit Program began operations there was a waiting list, estimated at 22,000 applicants, for VA direct loans. Through the efforts of the VHMCP, together with the Veterans Administration, all of these applications and all current applications were considered, and the waiting list was eliminated by June 30, 1955. The Veterans Administration is now engaged in a survey of its direct-loan areas to determine which of these areas can be removed from the eligible list of the direct-loan program. As the VHMCP brings sufficient money into these areas, the VA will reduce the number of eligible areas; thus, the achievement of the private mortgage lending industry in decreasing the necessity for Government lending will be graphically demonstrated.

Evidence is accumulating to indicate that many local lending institutions, faced with outside competition for the first time, are beginning to relax their earlier more stringent loan requirements.

Experience under the Voluntary Home Mortgage Credit Program has shown that many small towns all over the country have shared much more in other phases of postwar economic expansion than in housing. To the extent that an insufficient supply of funds for investment in FHA-insured and VA-guaranteed home mortgages was an obstacle to the expansion of housing, the VHMCP is paving the way for these towns to attract builders to a relatively untouched market. It is possible that building activity in small communities, with the help of the VHMC Program, can prove important in sustaining the housing sector of the economy. And, if other obstacles to the building of homes for minority groups, such as the availability of land, can be overcome, that too can be a potent contributor to total construction.

The Voluntary Home Mortgage Credit Program is a bold experiment in cooperation between industry and Government, and illustrates again how the solution of economic problems is being achieved by private industry, through broad and imaginative measures. The program is growing as it becomes better known, and the best test of its success is that it is proving itself in a tight mortgage market. This new instrument in mortgage financing can continue to make a substantial contribution toward providing needed housing in small towns and cities and for minority groups.

HOUSING VACANCY RATES, THIRD QUARTER 1955

The housing vacancy rate in the third quarter of 1955 remained at the same level as in the preceding quarter, or 2.3 percent of all dwelling units in the United States, according to the latest survey of the Bureau of the Census. The vacancy rates of housing available for rent remained at 1.8 percent, and the "for sale" portion at 0.5 percent of all dwelling units.

Vacant dwelling units available for occupancy [1]	Housing vacancy rates (percent)		
	3d quarter 1955	2d quarter 1955	April 1950
Total vacancies, all places	2.3	2.3	1.6
Northeast	1.4	1.2	1.1
North Central	1.7	1.7	1.1
South	2.9	2.9	2.0
West	4.0	3.9	2.7
For rent, all places [2]	1.8	1.8	1.1
For sale only, all places	.5	.5	.5

Source: Housing and Construction Report, Series H-111, No. 2, Bureau of the Census, U. S. Department of Commerce. Price, 10 cents a copy. See also Housing Vacancies in 1955, in the October 1955 issue of Construction Review.

[1] Nonseasonal, not dilapidated units.

[2] Comprises vacant units offered for rent, as well as those being offered for rent or for sale.

Estimating Demand for Fabricated Structural Steel

NATHAN H. SCHEIN*

Producers of all types of goods constantly face the problem of appraising their markets in order to set sales quotas for the next year or two. These and other business decisions relating to such matters as production schedules, inventory management, plant and equipment expenditures, and employment and wage policies, hinge on a reasonably accurate evaluation of future market potentials. In certain types of industries, the individual producer may be able to assess the probable demand for his product by obtaining information directly from his customers. A case in point is the relationship between the steel manufacturers and the automobile industry. Here, there is a direct measurement of anticipated steel requirements for automobile production based on the engineering details and production schedules of each make and model of automobile.

For producers of fabricated structural steel,[1] the evaluation of future demand through direct producer-consumer contact is not possible because of the diversified nature of the steel products required as well as the overwhelming number of consumers. Thus, an indirect approach is the most feasible one for evaluating the overall market potential for fabricated structural steel.

In a given aggregate demand situation, individual steel fabricators often can determine their own market potentials on the basis of their past experience as related to that of the industry as a whole. This article presents a method, developed by employing standard statistical techniques, for estimating future aggregate demand for fabricated structural steel.

The statistical analysis used relates historical information on fabricated structural steel shipments to the principal construction activities in which substantial quantities of this product are used. The findings show that the 1956 outlook is for a new postwar high in shipments of about 3,250,000 tons. This figure comes very close to the alltime record volume of 3,307,000 tons in 1929. Because the outlook represents a statistically derived figure based on correlation techniques, it is subject to statistical error. In this instance, the probability of the actual shipments varying from the estimate by as much as approximately 115,000 tons is very small (only about 5 chances out of 100).

The technique employed is another illustration of how outlook information on new construction activity can be used. As was the case in an earlier study on cement,[2] the method makes use of currently available statistics. While the present analysis employed the 1956 outlook for construction prepared jointly by the Departments of Commerce and Labor,[3] it would be possible to develop a forecast of structural steel shipments by applying the equations presented below to another construction activity outlook.

Since fabricated structural steel demand arises from construction activity, the short-term analysis and outlook can best be developed by correlating steel shipments with construction activity. But construction, for specific product analysis, cannot be considered as a single homogeneous activity. Fabricated structural steel finds little application in farm construction or in most residential buildings, whereas in certain types of nonresidential building and highway construction it is used extensively.

The first problem was the selection of the appropriate types of construction with which steelwork could be correlated. Initially, the segments correlated with fabricated structural steel shipments were: (1) Industrial buildings, (2) Commercial buildings, (3) Schools and hospitals, and (4) Highway construction. The regression coefficients, indicating the degree of relationship between each of these

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1 Fabricated structural steel includes steel joists, trusses, specially designed structural framework and similar products. It also includes factory-fabricated steelwork for erection at the construction site.

2 See The Demand for Cement. (*In* Construction and Building Materials, July 1954, U. S. Department of Commerce, Business and Defense Services Administration.)

3 See Outlook for Construction in 1956. (*In* Construction Review, November 1955.)

four types of construction (independent variables) and steel shipments, were computed. The coefficients for schools and hospitals were very low, reflecting the relatively small use of fabricated structural steel in these types of work, so that irrespective of the volume of construction in those areas, the inclusion of these groups as independent variables could not materially improve the accuracy of the estimating equation.

The partial or complete exclusion of these groups from the final regression analysis seemed to be suggested even on a nonmathematical basis. Building types portrayed in the architectural journals indicate that since 1947 the trends in school and hospital buildings have been toward the 1- or 2-story type, spread over a larger area, rather than the multistory type of structure. This basic change in design, creating different load requirements, has resulted in a reduction of structural steelwork in these buildings.

For similar reasons, stores, restaurants, and garages were found generally to require minor quantities of fabricated structural steel. This subgroup was therefore eliminated from the commercial buildings category, and a much more significant regression coefficient was derived for the residual warehouse, office and loft buildings subgroup.

After testing and eliminating successive nonresidential segments, shipments of fabricated structural steel were related to expenditures for: (1) Industrial buildings, (2) Warehouse, office and loft buildings, and (3) Highway construction. Special summary data on shipments of fabricated structural steel, by type of construction, reported to the American Institute of Steel Construction, indicate that these three types of construction account for about 80 percent of total shipments.

TABLE 1.—SHIPMENTS OF FABRICATED STRUCTURAL STEEL AND VALUE OF NEW CONSTRUCTION 1947-54, AND ESTIMATES FOR 1955-56

Year	Fabricated structural steel shipments (*Thousands of tons*)	Value of new construction put in place in 1947-49 prices (*Millions of dollars*)		
		Industrial buildings	Warehouse, office and loft buildings	Highways
1947	2,263	1,919	251	1,543
1948	2,326	1,524	344	1,672
1949	[1]2,256	1,127	313	2,128
1950	2,277	1,216	396	2,367
1951	2,702	2,611	500	2,349
1952	[1]2,864	3,293	461	2,489
1953	3,117	3,241	640	2,851
1954	3,135	2,943	789	3,573
1955*	[2]3,176 [3]3,140	2,528	890	3,870
1956*	[2]3,253 [3]3,202	2,577	941	4,216

Source: Fabricated structural steel shipments from American Institute of Steel Construction; construction activity from U. S. Department of Commerce and U. S. Department of Labor.

* Estimated.

1 The figures for 1949 and 1952 were raised respectively by 100,000 and 200,000 tons, representing net additions of 4.6 percent and 7.5 percent of the actual reported totals for these years. The steel industry strikes in 1949 and 1952 disrupted the flow of steel to fabricators. The direct impact of this was probably a reduction in amount of construction put in place. However, the method of estimating construction expenditures does not readily lend itself to an adjustment which would reflect the probable interruption of activity. Therefore, in order to reflect in the estimating equations a normal relationship between supply and demand, the steel shipment figures were raised to match the probable overestimate in construction activity for these two years.

2 Based on equation using aggregates, Equation I.

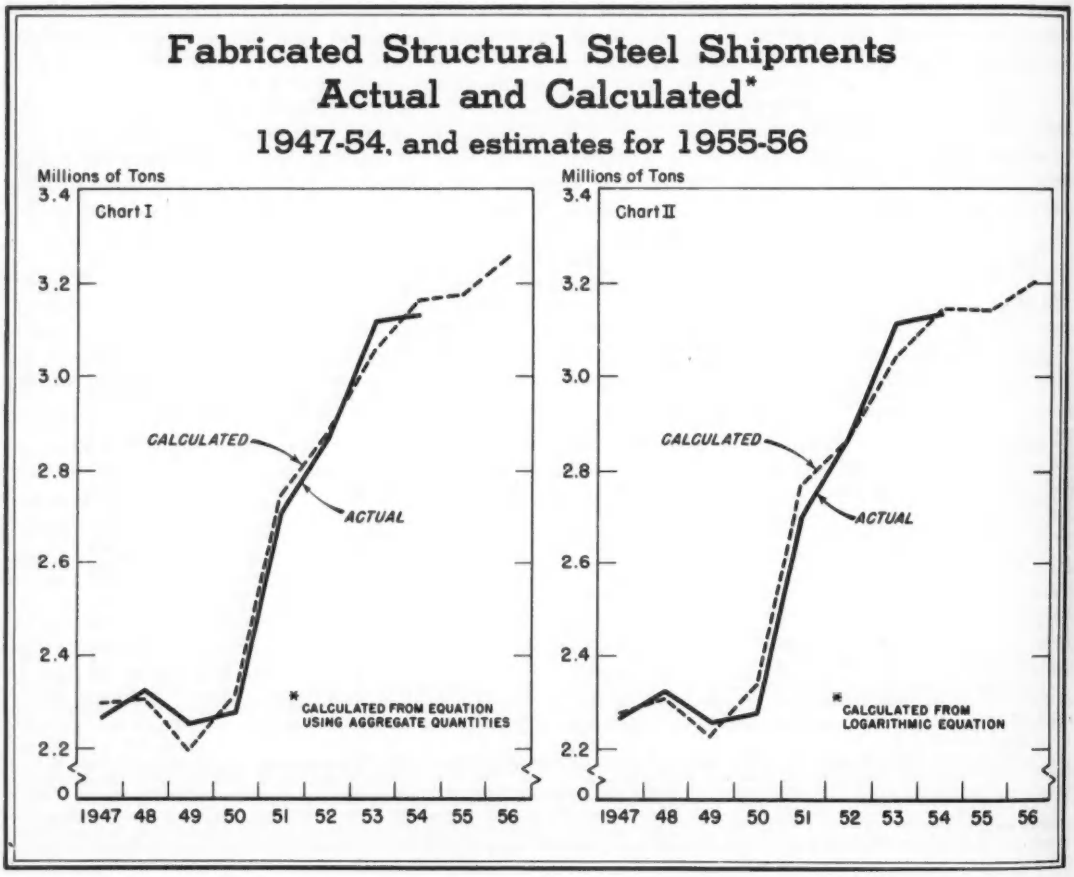
3 Based on logarithmic equation, Equation II.

Having fixed the basic factors involved, the problem of expressing the interrelationship of these factors in mathematical terms was undertaken. Two equations, one using actual values and the other the logarithms of these values, were formulated from the basic data shown in table 1. Data for 1947 to 1954 were used in deriving the equations from which shipments in 1955 and 1956 were estimated.

An analysis may be made in terms of either aggregate change or rates of change. In the former, comparison would be made between a change of so many thousand tons in shipments and change of

so many millions of dollars spent on new industrial, warehouse and office and loft buildings, and highways. In the latter, comparison would be made between percentage changes in steel shipments and percentage changes in construction expenditures. In this case the logarithms of the values shown in table 1 should be used instead of the actual figures. In the present analysis, both equations yield results which are sufficiently close to each other so that either one may be employed for outlook purposes.

The reliability of an estimating equation is demonstrated by the closeness with which calculated values correspond to the actual observations. In this analysis, closeness of fit between actual and calculated shipments is measured by two standard errors (5 percent variability). This means that in only about 5 percent of the observations would the difference between actual and calculated shipments be expected to exceed the value of two standard errors (plus or minus).



It should be emphasized that to get the best results from the technique employed, the derived estimating equations should be revised as data for each successive year become available. Furthermore, the accuracy of any outlook for the associated construction activities will have a great bearing on the reliability of the outlook for steel.

Using the actual aggregate quantities for 1947-54 shown in table 1, the following multiple regression equation is derived:

Equation I

$$X_{1c} = 1532.87 + 0.23523X_2 + 1.00204X_3 + 0.04064X_4$$

where X_{1c} = Calculated fabricated structural steel shipments in thousands of tons,

X_2 = New industrial building construction in millions of dollars (1947-49 prices),

X_3 = New warehouse, office, and loft building construction in millions of dollars (1947-49 prices),

X_4 = New highway construction in millions of dollars (1947-49 prices).

The value of 2 standard errors is ±114,000 tons, based on 4 degrees of freedom.

Calculated shipments for each year, 1947-56, are secured by substituting in Equation I the values for X_2, X_3, and X_4 shown in table 1.

TABLE 2.—FABRICATED STRUCTURAL STEEL SHIPMENTS, ACTUAL AND CALCULATED, 1947-54, AND CALCULATED, 1955-56

Year	Actual (*thousands of tons*)	Using aggregate equation (I)		Using logarithmic equation (II)	
		Calculated (*thousands of tons*)	Calculated as percent of actual	Calculated (*thousands of tons*)	Calculated as percent of actual
1947	2,263	2,298	101.5	2,275	100.5
1948	2,326	2,304	99.1	2,307	99.2
1949	2,256	2,198	97.4	2,201	97.6
1950	2,277	2,312	101.5	2,334	102.5
1951	2,702	2,744	101.6	2,769	102.5
1952	2,864	2,871	100.2	2,865	100.0
1953	3,117	3,052	97.9	3,039	97.5
1954	3,135	3,161	100.8	3,146	100.4
1955	--	3,176	--	3,140	--
1956	--	3,253	--	3,202	--

Source: Actual shipments from American Institute of Steel Construction.

Using the logarithms of the actual values for 1947-54 shown in table 1, the following equation is derived:

Equation II

$$\log X_{1c} = 2.12667 + 0.17792 \log X_2 + 0.15191 \log X_3 + 0.08832 \log X_4$$

where X_{1c}, X_2, X_3, and X_4 are the same as in the preceding equation.

In deriving the calculated values, the logarithms of X_2, X_3, and X_4 are substituted in Equation II. The resultant $\log X_{1c}$ is converted to the calculated aggregate by using the antilog of $\log X_{1c}$. The value of 2 standard errors, converted to tons, is ±132,000 tons, based on 4 degrees of freedom.

Estimates of steel shipments for 1955 and 1956 obtained from both equations are shown in table 1. Comparisons between actual observations for 1947-54 and calculated values obtained by using the two equations are shown in table 2 and the accompanying chart.

New Publications Available

VACANCY RATES FOR APARTMENTS

The vacancy rate for apartments in large privately owned rental projects was 4 percent in May 1955, according to a recent report made by the Bureau of the Census at the request of the Business and Defense Services Administration, U. S. Department of Commerce. This figure is not comparable with data from recent quarterly studies that covered all dwelling units offered for sale or for rent.

The special survey of vacancies in apartment properties with 100-or-more units, conducted by mail questionnaire, is the first of its type, and presents vacancy rates by geographic region and for individual standard metropolitan areas that contain 25 or more large rental properties.

Regionally, there were more apartment vacancies in the South and West than in the North Central and Northeast regions. Among the metropolitan areas surveyed, the lowest apartment vacancy rates were found in the New York-Northeastern New Jersey, Detroit, Cleveland, and Kansas City areas, and the highest in the Dallas and Norfolk-Portsmouth, Va., areas.

The full results of the vacancy survey of apartment units are published in Housing and Construction Report, Series H-121, No. 2, Bureau of the Census, U. S. Department of Commerce. Price, 10 cents a copy.

NEW STUDIES MEASURE SUBURBANIZATION OF MANUFACTURING AND SERVICE INDUSTRIES

New measures of the suburbanization of the manufacturing and service industries are presented in two recently completed studies. These studies are useful in analyzing the relationship between changes in the distribution of metropolitan area population and locational changes of these industries within an area. They contain detailed tabulations, analytical text, and descriptions of techniques used. The findings provide a basis for understanding the growth of industrial and commercial building, and related types of construction in metropolitan areas generally and suburban places in particular.

Suburbanization of Manufacturing Activity Within Metropolitan Areas

This report is based on statistics from the U. S. Census of Manufactures for 1929, 1939, and 1947, and the population censuses of 1930, 1940, and 1950. It provides new measures on this subject by combining economic and population analysis; by studying variations between individual metropolitan areas and within the parts of each area; by using several measurements of manufacturing activity--indexes of value added, employment, and number of establishments; and by comparing the location of manufacturing jobs with jobholders' place of residence.

Suburbanization of Service Industries Within Metropolitan Areas

This study is based on data from the 1939 and 1948 Census of Business and the 1940 population census, and estimates of 1948 population in metropolitan areas. Four types of service trade activity are examined: personal services, business services, automobile repair services and garages, and miscellaneous repair services. The study explores the possible effects of such factors as family income and occupational class on the location of establishments, and it reveals unique regional needs for specific types of services.

These two reports were published jointly by the Scripps Foundation for Research in Population Problems (Miami University, Oxford, Ohio) and the Population Research Training Center (University of Chicago, Chicago, Ill.). Both studies were financed and sponsored by the Housing and Home Finance Agency and the Rockefeller Foundation. The two publications may be obtained from Miami University, at $2 each.

Table 1.--New Construction Put in Place: Current Month, by Type of Construction

Type of construction	Value (*in millions of dollars*)					Percent change		
	1955		1954	First 11 months		Nov. 1955 from--		First 11 months, 1954-55
	Nov.	Oct.	Nov.	1955	1954	Oct. 1955	Nov. 1954	
TOTAL NEW CONSTRUCTION	**3,569**	**3,903**	**3,329**	**38,865**	**34,485**	**- 9**	**+ 7**	**+13**
PRIVATE CONSTRUCTION	**2,584**	**2,724**	**2,358**	**27,645**	**23,505**	**- 5**	**+10**	**+18**
Residential building (nonfarm)	1,374	1,455	1,293	15,106	12,238	- 6	+ 6	+23
New dwelling units	1,245	1,315	1,175	13,645	10,920	- 5	+ 6	+25
Additions and alterations	98	109	96	1,159	1,044	-10	+ 2	+11
Nonhousekeeping	31	31	22	302	274	0	+41	+10
Nonresidential building	716	730	564	6,955	5,698	- 2	+27	+22
Industrial	224	220	178	2,169	1,846	+ 2	+26	+17
Commercial	297	311	203	2,783	2,020	- 5	+46	+38
Warehouses, office and loft buildings	110	105	90	1,020	871	+ 5	+22	+17
Stores, restaurants, and garages	187	206	113	1,763	1,149	- 9	+65	+53
Other nonresidential building	195	199	183	2,003	1,832	- 2	+ 7	+ 9
Religious	67	69	59	675	536	- 3	+14	+26
Educational	45	45	48	457	484	0	- 6	- 6
Hospital and institutional	28	30	29	323	308	- 7	- 3	+ 5
Social and recreational	21	22	21	224	209	- 5	0	+ 7
Miscellaneous	34	33	26	324	295	+ 3	+31	+10
Farm construction	95	113	106	1,319	1,467	-16	-10	-10
Public utility	388	415	383	4,114	3,993	- 7	+ 1	+ 3
Railroad	30	32	28	311	325	- 6	+ 7	- 4
Telephone and telegraph	60	60	55	645	604	0	+ 9	+ 7
Other public utility	298	323	300	3,158	3,064	- 8	- 1	+ 3
All other private	11	11	12	151	109	0	- 8	+39
PUBLIC CONSTRUCTION	**985**	**1,179**	**971**	**11,220**	**10,980**	**-16**	**+ 1**	**+ 2**
Residential building	20	21	22	238	314	- 5	- 9	-24
Nonresidential building	317	351	366	3,934	4,290	-10	-13	- 8
Industrial	34	42	104	684	1,404	-19	-67	-51
Educational	200	212	185	2,258	1,953	- 6	+ 8	+16
Hospital and institutional	25	28	28	310	340	-11	-11	- 9
Other nonresidential building	58	69	49	682	593	-16	+18	+15
Military facilities	127	134	95	1,201	942	- 5	+34	+27
Highway	345	475	320	3,880	3,536	-27	+ 8	+10
Sewer and water	89	97	83	1,005	905	- 8	+ 7	+11
Public service enterprises	24	32	16	260	203	-25	+50	+28
Conservation and development	50	54	58	557	652	- 7	-14	-15
All other public	13	15	11	145	138	-13	+18	+ 5

Source: Departments of Commerce and Labor.

NOTE: For all the statistical series shown in Construction Review, data for the latest months or quarter, and the most recent year, are subject to revision.

Table 2.--New Construction Put in Place: Recent Monthly Trend, by Type of Construction

(Value, in millions of dollars)

Type of construction	1954		1955										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
TOTAL NEW CONSTRUCTION	**3,329**	**3,092**	**2,814**	**2,699**	**2,990**	**3,282**	**3,604**	**3,881**	**4,020**	**4,055**	**4,048**	**3,903**	**3,569**
PRIVATE CONSTRUCTION	**2,358**	**2,263**	**2,072**	**2,003**	**2,194**	**2,366**	**2,545**	**2,731**	**2,807**	**2,814**	**2,805**	**2,724**	**2,584**
Residential building (nonfarm)	1,293	1,258	1,122	1,049	1,185	1,319	1,430	1,544	1,570	1,541	1,517	1,455	1,374
New dwelling units	1,175	1,150	1,030	960	1,085	1,190	1,270	1,380	1,410	1,390	1,370	1,315	1,245
Additions and alterations	96	86	71	68	79	106	133	133	127	119	116	109	98
Nonhousekeeping	22	22	21	21	21	23	27	31	33	32	31	31	31
Nonresidential building	564	552	542	549	559	562	590	634	666	688	719	730	716
Industrial	178	184	186	187	186	184	183	189	196	203	211	220	224
Commercial	203	192	188	199	208	213	234	259	277	289	308	311	297
Warehouses, office and loft buildings	90	87	84	83	82	84	88	90	94	99	101	105	110
Stores, restaurants, and garages	113	105	104	116	126	129	146	169	183	190	207	206	187
Other nonresidential bldg.	183	176	168	163	165	165	173	186	193	196	200	199	195
Religious	59	57	55	53	53	54	58	62	66	68	70	69	67
Educational	48	45	42	39	41	40	37	39	41	43	45	45	45
Hospital & institutional	29	29	28	28	28	28	30	30	31	31	31	30	28
Social and recreational	21	19	18	17	16	17	20	24	24	23	22	22	21
Miscellaneous	26	26	25	26	27	26	28	31	31	31	32	33	34
Farm construction	106	93	92	95	103	114	131	141	148	150	137	113	95
Public utility	383	348	302	297	333	357	378	396	407	421	420	415	388
Railroad	28	28	20	19	25	28	29	30	31	33	34	32	30
Telephone and telegraph	55	51	50	50	55	55	60	60	65	65	65	60	60
Other public utility	300	269	232	228	253	274	289	306	311	323	321	323	298
All other private	12	12	14	13	14	14	16	16	16	14	12	11	11
PUBLIC CONSTRUCTION	**971**	**829**	**742**	**696**	**796**	**916**	**1,059**	**1,150**	**1,213**	**1,241**	**1,243**	**1,179**	**985**
Residential building	22	22	22	21	23	22	22	23	21	22	21	21	20
Nonresidential building	366	351	342	320	349	361	374	382	386	379	373	351	317
Industrial	104	102	90	76	77	71	71	68	63	50	42	42	34
Educational	185	181	182	178	190	202	211	217	220	223	223	212	200
Hospital and institutional	28	25	25	22	27	28	28	30	32	32	33	28	25
Other nonresidential bldg.	49	43	45	44	55	60	64	67	71	74	75	69	58
Military facilities	95	88	78	77	82	98	106	119	121	128	131	134	127
Highway	320	214	155	150	190	270	375	430	480	500	510	475	345
Sewer and water	83	77	76	70	81	88	96	99	104	105	100	97	89
Public service enterprises	16	15	13	11	14	16	20	27	31	36	36	32	24
Conservation and development	58	52	45	38	45	48	53	56	56	56	56	54	50
All other public	11	10	11	9	12	13	13	14	14	15	16	15	13

Source: Departments of Commerce and Labor.

COMPOSITION OF REGIONS AND GEOGRAPHIC DIVISIONS

NORTHEAST

1. *New England*
   Connecticut
   Maine
   Massachusetts
   New Hampshire
   Rhode Island
   Vermont
2. *Middle Atlantic*
   New Jersey
   New York
   Pennsylvania

NORTH CENTRAL

3. *E. N. Central*
   Illinois
   Indiana
   Michigan
   Ohio
   Wisconsin
4. *W. N. Central*
   Iowa
   Kansas
   Minnesota
   Missouri
   Nebraska
   North Dakota
   South Dakota

SOUTH

5. *S. Atlantic*
   Delaware
   Dist. of Col.
   Florida
   Georgia
   Maryland
   N. Carolina
   S. Carolina
   Virginia
   W. Virginia
6. *E. S. Central*
   Alabama
   Kentucky
   Mississippi
   Tennessee
7. *W. S. Central*
   Arkansas
   Louisiana
   Oklahoma
   Texas

WEST

8. *Mountain*
   Arizona
   Colorado
   Idaho
   Montana
   Nevada
   New Mexico
   Utah
   Wyoming
9. *Pacific*
   California
   Oregon
   Washington

NONFARM POPULATION DISTRIBUTION IN 1950

NORTHEAST—29.5 percent. *NORTH CENTRAL*—29.0 percent. *SOUTH*—27.7 percent. *WEST*—13.8 percent.

Chart I.

New Construction Put in Place

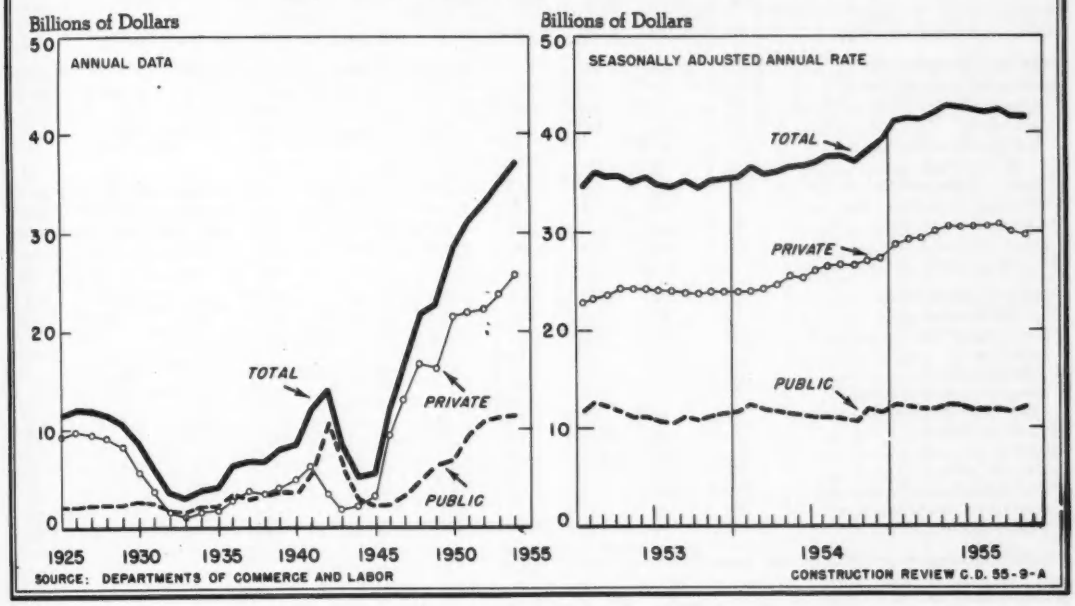


Table 3.--New Construction Put in Place: Seasonally Adjusted Annual Rate, by Type of Construction

(Value, in millions of dollars)

Type of construction	Seasonally adjusted annual rate							Annual total	
	1954	1955							
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	1953	1954
TOTAL NEW CONSTRUCTION	**39,048**	**42,768**	**42,492**	**42,288**	**42,432**	**41,760**	**41,616**	**35,271**	**37,577**
PRIVATE CONSTRUCTION	**27,228**	**30,552**	**30,672**	**30,612**	**30,756**	**30,156**	**29,640**	**23,877**	**25,768**
Residential building (nonfarm)	14,748	17,028	16,992	16,680	16,572	15,888	15,564	11,930	13,496
Nonresidential building	6,444	7,476	7,656	7,932	8,208	8,316	8,160	5,680	6,250
Industrial	2,076	2,364	2,424	2,460	2,484	2,568	2,604	2,229	2,030
Commercial	2,232	2,940	3,024	3,312	3,540	3,564	3,288	1,791	2,192
Warehouses, office and loft buildings	996	1,152	1,140	1,152	1,176	1,212	1,224	739	958
Stores, restaurants, and garages	1,236	1,788	1,884	2,160	2,364	2,352	2,064	1,052	1,254
Other nonresidential building	2,136	2,172	2,208	2,160	2,184	2,184	2,268	1,660	2,008
Farm construction	1,500	1,404	1,392	1,380	1,368	1,356	1,344	1,731	1,560
Public utility	4,380	4,488	4,476	4,476	4,464	4,452	4,440	4,416	4,341
All other private	156	156	156	144	144	144	132	120	121
PUBLIC CONSTRUCTION	**11,820**	**12,216**	**11,820**	**11,676**	**11,676**	**11,604**	**11,976**	**11,394**	**11,809**
Residential building	264	264	240	240	228	240	240	556	336
Nonresidential building	4,608	4,356	4,128	4,008	4,056	3,924	3,996	4,346	4,641
Military facilities	1,080	1,404	1,344	1,308	1,320	1,404	1,464	1,307	1,030
Highway	3,840	4,056	4,032	3,984	3,912	3,888	4,128	3,160	3,750
Sewer and water	1,032	1,092	1,044	1,068	1,068	1,068	1,104	883	982
Public service enterprises	216	264	288	336	372	360	348	200	218
Conservation and development	636	636	600	576	552	540	528	830	704
All other public	144	144	144	156	168	180	168	112	148

Source: Departments of Commerce and Labor.

Table 4.--New Construction Put in Place: Value in 1947-49 Prices, by Type of Construction

(Millions of dollars)

Type of construction	1955			1954	Year					
	Oct.	Sept.	Aug.	Oct.	1949	1950	1951	1952	1953	1954
TOTAL NEW CONSTRUCTION	**3,097**	**3,219**	**3,234**	**2,869**	**22,177**	**26,608**	**26,988**	**27,662**	**28,931**	**30,912**
PRIVATE CONSTRUCTION	**2,119**	**2,186**	**2,201**	**1,953**	**15,956**	**19,885**	**18,677**	**18,428**	**19,433**	**20,934**
Residential building (nonfarm)	1,159	1,212	1,234	1,092	8,128	11,634	9,457	9,311	9,840	11,214
Nonresidential building	567	559	537	446	3,124	3,566	4,494	4,211	4,655	5,073
Industrial	176	169	163	142	954	1,004	1,790	1,909	1,807	1,690
Warehouses, office and loft buildings	82	79	78	72	313	396	500	461	640	789
Stores, restaurants, and garages	157	158	146	89	677	828	733	525	857	998
Other nonresidential bldgs.	152	153	150	143	1,180	1,338	1,471	1,316	1,351	1,596
Farm construction	93	114	125	107	1,479	1,583	1,616	1,643	1,484	1,341
Public utility	292	293	295	299	3,151	3,001	3,056	3,194	3,362	3,216
All other private	8	8	10	9	74	101	54	69	92	90
PUBLIC CONSTRUCTION	**978**	**1,033**	**1,033**	**916**	**6,221**	**6,723**	**8,311**	**9,234**	**9,498**	**9,978**
Residential building	17	17	18	19	353	321	512	550	459	281
Nonresidential building	270	287	293	312	1,990	2,237	3,050	3,465	3,531	3,743
Industrial	34	34	40	88	173	212	821	1,384	1,434	1,253
Educational	162	171	171	152	897	1,061	1,337	1,375	1,397	1,696
Hospital and institutional	21	25	25	24	458	467	466	401	297	289
Other nonresidential building	53	57	57	48	462	497	426	305	403	505
Military facilities	109	107	105	85	134	171	788	1,195	1,105	872
Highway	444	478	469	370	2,128	2,367	2,349	2,489	2,851	3,573
Sewer and water	68	70	74	64	586	590	655	639	681	724
Public service enterprises	22	24	24	13	190	164	168	148	146	156
Conservation and development	38	39	39	44	750	786	721	694	639	520
All other public	10	11	11	9	90	87	68	54	86	109

Source: Departments of Commerce and Labor.

Chart 2

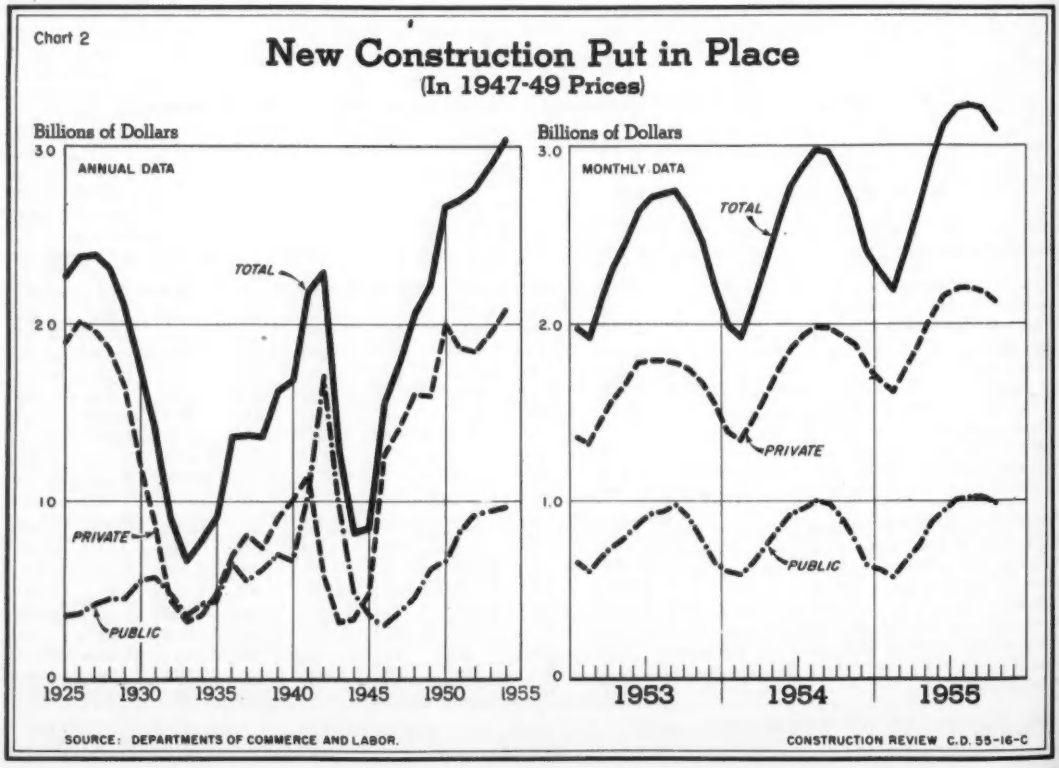


Table 5.--New Public Construction Put in Place, by Source of Funds, Ownership, and Type of Construction

Source of funds, ownership, and type of construction	Value *(in millions of dollars)*								Percent change		
	1954	1955					First 11 months		Nov. 1955 from--		First 11 months, 1954-55
	Nov.	July	Aug.	Sept.	Oct.	Nov.	1954	1955	Nov. 1954	Oct. 1955	
TOTAL PUBLIC CONSTRUCTION	**971**	**1,213**	**1,241**	**1,243**	**1,179**	**985**	**10,980**	**11,220**	**+ 1**	**-16**	**+ 2**
Federal funds	326	339	346	339	332	287	3,864	3,300	-12	-14	-15
Direct Federal	268	255	252	247	250	224	3,196	2,582	-16	-10	-19
Federal grants-in-aid [1]	58	84	94	92	82	63	668	718	+ 9	-23	+ 7
State and local funds	645	874	895	904	847	698	7,116	7,920	+ 8	-18	+11
FEDERALLY OWNED	**268**	**255**	**252**	**247**	**250**	**224**	**3,196**	**2,582**	**-16**	**-10**	**-19**
Residential building	0	0	1	0	0	0	5	1	0	0	-80
Nonresidential building	110	70	58	52	55	41	1,535	757	-63	-25	-51
Industrial	104	63	50	42	42	34	1,404	684	-67	-19	-51
Educational	0	0	0	1	2	0	9	6	0	-100	-33
Hospital	2	2	2	2	2	2	33	18	0	0	-45
Other nonresidential	4	5	6	7	9	5	89	49	+25	-44	-45
Military facilities	95	121	128	131	134	127	942	1,201	+34	- 5	+27
Highway	4	7	8	7	6	5	52	56	+25	-17	+ 8
Conservation and development	58	56	56	56	54	50	652	557	-14	- 7	-15
All other federally owned	1	1	1	1	1	1	10	10	0	0	0
STATE AND LOCALLY OWNED	**703**	**958**	**989**	**996**	**929**	**761**	**7,784**	**8,638**	**+ 8**	**-18**	**+11**
Residential building	22	21	21	21	21	20	309	237	- 9	- 5	-23
Nonresidential building	256	316	321	321	296	276	2,755	3,177	+ 8	- 7	+15
Educational	185	220	223	222	210	200	1,944	2,252	+ 8	- 5	+16
Hospital	26	30	30	31	26	23	307	292	-12	-12	- 5
Other nonresidential	45	66	68	68	60	53	504	633	+18	-12	+26
Highway	316	473	492	503	469	340	3,484	3,824	+ 8	-28	+10
Sewer and water	83	104	105	100	97	89	905	1,005	+ 7	- 8	+11
All other State and locally owned	26	44	50	51	46	36	331	395	+38	-22	+19

Source: Departments of Commerce and Labor. [1] Construction programs currently receiving Federal grants-in-aid cover highways, schools, hospitals, airports, and miscellaneous community facilities.

Table 6.--New Nonfarm Dwelling Units Started, by Ownership, Location, and Type of Structure

Period	Total	Ownership		Location [1]		Type of structure			
		Private	Public	Metropolitan	Nonmetropolitan	1-family houses	Units in 2-or-more family structures		
							All	2-4 family	5-or-more family
	NUMBER OF NEW DWELLING UNITS *(in thousands)*								
Year: 1946	670.5	662.5	8.0	(2)	(2)	590.0	80.5	(3)	(3)
1947	849.0	845.6	3.4	(2)	(2)	740.2	108.8	(3)	(3)
1948	931.6	913.5	18.1	(2)	(2)	766.6	165.0	(3)	(3)
1949	1,025.1	988.8	36.3	(2)	(2)	794.3	230.8	(3)	(3)
1950	1,396.0	1,352.2	43.8	1,021.6	374.4	1,154.1	241.9	(3)	(3)
1951	1,091.3	1,020.1	71.2	776.8	314.5	900.1	191.2	(3)	(3)
1952	1,127.0	1,068.5	58.5	794.9	332.1	942.5	184.5	(3)	(3)
1953	1,103.8	1,068.3	35.5	803.5	300.3	937.8	166.0	(3)	(3)
1954	1,220.4	1,201.7	18.7	896.9	323.5	1,077.9	142.5	51.9	90.6
First 10 months, 1954	1,026.2	1,008.5	17.7	751.5	274.7	905.6	120.6	42.4	78.2
First 10 months, 1955	1,161.3	1,146.9	14.4	854.2	307.1	(4)	(4)	(4)	(4)
1954: October	110.7	110.5	.2	80.4	30.3	100.3	10.4	4.5	5.9
November	103.6	103.3	.3	75.7	27.9	92.8	10.8	4.5	6.3
December	90.6	89.9	.7	69.7	20.9	79.5	11.1	5.0	6.1
1955: January	87.6	87.3	.3	68.1	19.5	78.3	9.3	3.6	5.7
February	89.9	87.9	2.0	66.9	23.0	78.9	11.0	3.9	7.1
March	113.8	112.8	1.0	86.8	27.0	100.1	13.7	5.0	8.7
April	132.0	130.5	1.5	96.8	35.2	119.9	12.1	4.7	7.4
May	137.6	135.1	2.5	99.7	37.9	122.2	15.4	5.1	10.3
June	134.8	131.4	3.4	98.9	35.9	121.5	13.3	4.4	8.9
July	122.6	121.9	.7	88.3	34.3	113.5	9.1	3.9	5.2
August	123.0	121.7	1.3	90.6	32.4	(4)	(4)	(4)	(4)
September	113.0	111.7	1.3	80.9	32.1	(4)	(4)	(4)	(4)
October	107.0	106.6	.4	77.2	29.8	(4)	(4)	(4)	(4)
	Percent change								
First 10 months, 1954-55	+13.2	+13.7	-18.6	+13.7	+11.8	--	--	--	--
September-October, 1955	- 5.3	- 4.6	-69.2	- 4.6	- 7.2	--	--	--	--
October, 1954-55	- 3.3	- 3.5	+100.0	- 4.0	- 1.7	--	--	--	--
	PERCENT DISTRIBUTION								
Year: 1946	100	98.8	1.2	--	--	88.0	12.0	--	--
1947	100	99.6	.4	--	--	87.2	12.8	--	--
1948	100	98.1	1.9	--	--	82.3	17.7	--	--
1949	100	96.5	3.5	--	--	77.5	22.5	--	--
1950	100	96.9	3.1	73.2	26.8	82.7	17.3	--	--
1951	100	93.5	6.5	71.2	28.8	82.5	17.5	--	--
1952	100	94.8	5.2	70.5	29.5	83.6	16.4	--	--
1953	100	96.8	3.2	72.8	27.2	85.0	15.0	--	--
1954	100	98.5	1.5	73.5	26.5	88.3	11.7	4.3	7.4
First 10 months, 1954	100	98.3	1.7	73.2	26.8	88.2	11.8	4.2	7.6
First 10 months, 1955	100	98.8	1.2	73.6	26.4	--	--	--	--
1954: October	100	99.8	.2	72.6	27.4	90.6	9.4	4.1	5.3
November	100	99.7	.3	73.1	26.9	89.6	10.4	4.3	6.1
December	100	99.2	.8	76.9	23.1	87.7	12.3	5.5	6.8
1955: January	100	99.7	.3	77.7	22.3	89.4	10.6	4.1	6.5
February	100	97.8	2.2	74.4	25.6	87.8	12.2	4.3	7.9
March	100	99.1	.9	76.3	23.7	88.0	12.0	4.4	7.6
April	100	98.9	1.1	73.3	26.7	90.8	9.2	3.6	5.6
May	100	98.2	1.8	72.5	27.5	88.8	11.2	3.7	7.5
June	100	97.5	2.5	73.4	26.6	90.1	9.9	3.3	6.6
July	100	99.4	.6	72.0	28.0	92.6	7.4	3.2	4.2
August	100	98.9	1.1	73.7	26.3	--	--	--	--
September	100	98.8	1.2	71.6	28.4	--	--	--	--
October	100	99.6	.4	72.1	27.9	--	--	--	--

Source: Department of Labor. [1] Data by urban and rural-nonfarm classification for 1920-53 are available upon request. [2] Annual data not available before 1950; monthly data not available before January 1953. [3] Not available before January 1954. Tabulations showing the number of units in 2-family and 3-or-more family structures for 1920-53 are available upon request. [4] Not yet available.

Table 7.--New Private Nonfarm Dwelling Units Started: Seasonally Adjusted Annual Rate

Year	Number of new dwelling units *(in thousands)*											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1946	598	661	752	693	677	655	645	663	634	658	643	646
1947	619	667	679	694	735	803	854	923	1,029	1,089	1,064	962
1948	851	762	925	1,015	1,000	1,008	986	912	886	838	827	812
1949	751	745	792	879	920	950	976	1,035	1,108	1,187	1,259	1,266
1950	1,262	1,283	1,406	1,358	1,469	1,496	1,471	1,476	1,278	1,174	1,115	1,292
1951	1,333	1,192	1,093	955	984	942	914	946	1,049	1,036	973	978
1952	996	1,158	1,104	1,003	1,018	1,011	1,064	1,044	1,092	1,156	1,110	1,111
1953	1,106	1,150	1,165	1,111	1,065	1,064	1,015	988	1,014	1,050	1,077	1,060
1954	1,056	1,152	1,130	1,102	1,083	1,175	1,188	1,211	1,248	1,287	1,393	1,478
1955	1,416	1,370	1,367	1,350	1,362	1,371	1,283	1,304	1,230	1,242		

Source: Department of Labor.

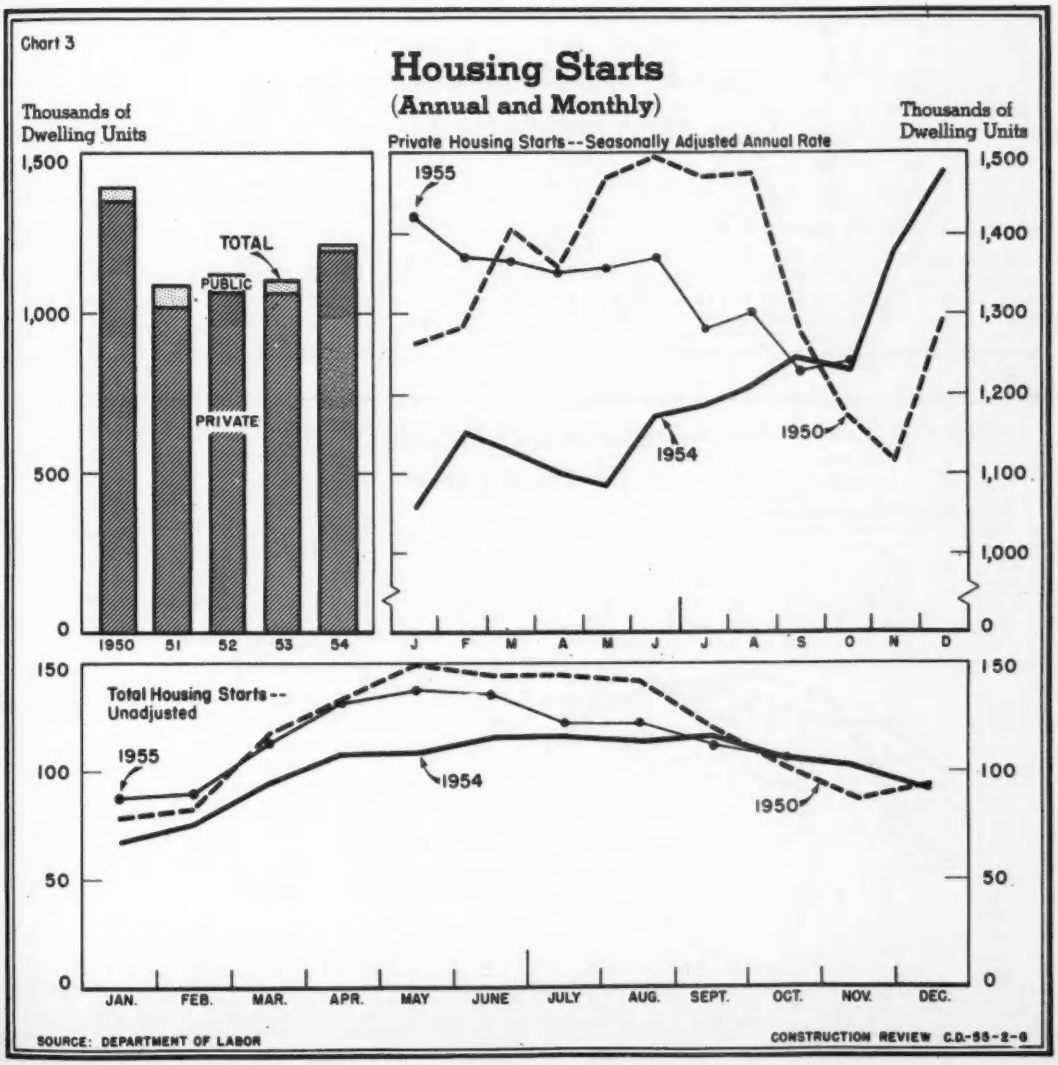


Table 8.--New Private 1-Family Houses Started: Average Construction Cost

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
	AVERAGE CONSTRUCTION COST												
1946	$5,250	$5,400	$5,850	$5,575	$5,475	$5,425	$5,375	$5,450	$5,450	$5,625	$5,675	$5,575	$5,525
1947	5,700	5,825	6,150	6,275	6,250	6,450	6,725	6,950	7,025	7,275	7,525	7,650	6,750
1948	7,250	7,450	7,550	7,775	7,950	8,050	8,050	8,100	7,900	7,825	7,900	7,900	7,850
1949	7,650	7,525	7,450	7,500	7,650	7,675	7,525	7,650	7,725	7,675	7,675	7,625	7,625
1950	7,625	7,850	8,225	8,450	8,450	8,750	8,875	9,125	8,900	9,200	9,075	9,200	8,675
1951	9,100	9,250	9,175	9,325	9,475	9,475	9,400	9,300	9,450	9,225	9,250	9,125	9,300
1952	9,050	9,275	9,350	9,550	9,575	9,675	9,500	9,425	9,600	9,525	9,550	9,525	9,475
1953	9,400	9,600	9,800	10,000	9,900	10,000	10,125	10,175	10,200	10,175	9,975	10,000	9,950
1954	9,750	9,800	10,075	10,600	10,850	10,750	10,850	10,750	10,675	10,800	10,850	11,075	10,625
1955	10,575	11,125	11,250	11,250	11,400	11,400	11,475	(1)	(1)	(1)			
	Percent change, 1954 to 1955												
	+8.5	+13.5	+11.7	+6.1	+5.1	+6.0	+5.8	--	--	--			

Source: Department of Labor. [1] Not yet available.

Table 9.--New Nonfarm Dwelling Units Started, by Region [1]

Region	Number of new dwelling units *(in thousands)*											Percent change, first 7 months 1954-55
	1954		1955							First 7 months		
	July	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	1954	1955	
TOTAL	116.0	90.6	87.6	89.9	113.8	132.0	137.6	134.8	122.6	685.5	818.3	+19.4
Northeast	25.3	15.3	16.0	13.5	23.6	28.6	30.3	30.8	27.0	140.0	169.8	+21.3
North Central	33.3	20.0	15.6	19.7	28.1	37.3	40.0	39.3	35.6	184.4	215.6	+16.9
South	32.2	28.0	30.6	32.4	32.9	35.7	37.4	36.5	32.7	200.7	238.2	+18.7
West	25.2	27.3	25.4	24.3	29.2	30.4	29.9	28.2	27.3	160.4	194.7	+21.4

Source: Department of Labor. [1] Composition of regions, and nonfarm population distribution by region, are shown below table 2.

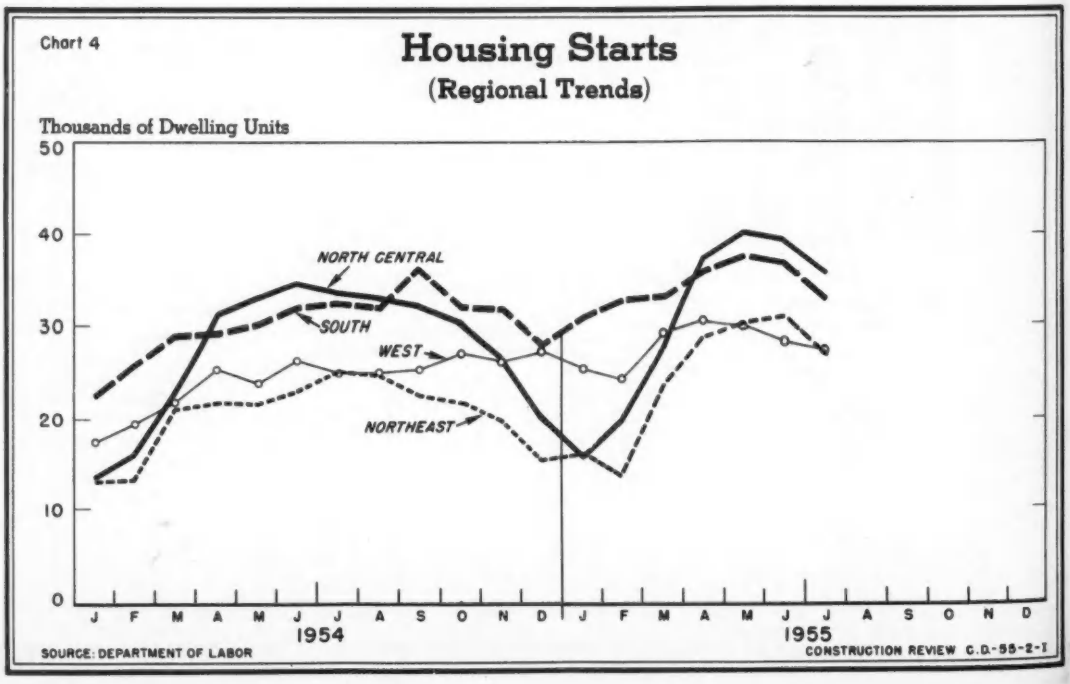


Table 10.--New Private Nonfarm Dwelling Units: Mortgages Applied for, Appraisals requested, and Units Started Under FHA and VA Programs

Period	FHA-assisted units		VA-assisted units		Nonfarm dwelling units started		
	In applications	Started (*in thousands*)	In appraisal requests	Started (*in thousands*)	U. S. total	FHA-assisted	VA-assisted
	NUMBER OF DWELLING UNITS				PERCENT DISTRIBUTION		
Year: 1950	627,927	486.7	(1)	200.0	100	36	15
1951	268,740	263.5	164,365	148.6	100	26	15
1952	323,923	280.0	226,299	141.3	100	26	13
1953	327,323	252.0	251,437	156.6	100	24	15
1954	383,334	276.3	535,412	307.0	100	23	26
First 10 mos., 1954	330,005	228.4	443,432	241.9	100	23	24
First 10 mos., 1955	284,685	243.3	565,487	342.1	100	21	30
1954: October	30,075	24.7	45,572	33.5	100	22	30
November	28,735	26.3	47,729	36.0	100	25	35
December	24,594	21.5	44,251	29.1	100	24	32
1955: January	26,067	20.0	46,204	26.1	100	23	30
February	28,548	17.2	64,192	28.0	100	20	32
March	36,622	23.8	71,939	29.9	100	21	27
April	33,412	25.8	65,856	34.5	100	20	26
May	31,111	28.0	69,280	37.8	100	21	28
June	32,521	32.1	52,424	39.5	100	24	30
July	25,033	26.0	51,412	37.4	100	21	31
August	27,294	26.9	55,974	40.8	100	22	34
September	23,840	24.7	45,063	33.4	100	22	30
October	20,237	18.8	43,143	34.8	100	18	33
	Percent change						
First 10 mos., 1954-55	-14	+7	+28	+41			

Source: Table compiled by Department of Labor from data reported by the Federal Housing Administration (HHFA) and the Veterans Administration. [1] Not available.

Table 11.--Nonfarm Mortgage Recordings of $20,000 or Less: Number and Average Amount, and Total Amount by Type of Lender

Period	Total number (*in thousands*)	Average amount (*dollars*)	Total amount (*in millions of dollars*) recorded by--						
			All lenders	Savings and loan associations	Insurance companies	Commercial banks	Mutual savings banks	Individuals	All other lenders
Year: 1950	3,032	5,535	16,179	5,060	1,618	3,365	1,064	2,299	2,774
1951	2,878	5,701	16,405	5,295	1,615	3,370	1,013	2,539	2,572
1952	3,028	5,950	18,018	6,452	1,420	3,600	1,137	2,758	2,651
1953	3,164	6,241	19,747	7,365	1,480	3,680	1,327	2,841	3,055
1954	3,458	6,644	22,974	8,312	1,768	4,239	1,501	2,882	4,272
First 9 mos., 1954	2,520	6,510	16,404	6,006	1,221	3,027	1,056	2,134	2,960
First 9 mos., 1955	2,980	7,246	21,593	8,152	1,471	4,155	1,353	2,523	3,939
1954: September	313	6,789	2,122	766	164	383	141	250	417
October	314	6,874	2,156	765	178	393	140	248	431
November	307	7,004	2,148	757	177	399	147	246	420
December	318	7,131	2,267	784	191	420	158	252	462
1955: January	284	7,120	2,024	688	165	379	128	246	419
February	277	7,077	1,958	702	151	365	116	228	396
March	343	7,153	2,455	928	174	458	134	303	459
April	328	7,182	2,357	900	165	456	136	276	424
May	344	7,215	2,483	950	163	482	153	286	449
June	360	7,312	2,636	1,024	174	516	171	301	449
July	335	7,348	2,463	953	161	472	168	283	425
August	366	7,362	2,697	1,060	163	541	179	310	463
September	342	7,377	2,522	946	155	505	168	292	456
	Percent change								
First 9 mos., 1954-55	+18	+11	+32	+36	+21	+37	+28	+18	+33

Source: Table compiled by Department of Labor from data reported by the Home Loan Bank Board (HHFA).

Part III--Building Permits

Table 12.--Building Permit Activity: Current Summary, by Type of Building

Type of building	Valuation *(in millions of dollars)*						Percent change, Oct. 1954-55
	1955			1954	First 10 months		
	Oct.	Sept.	Aug.	Oct.	1955	1954	
All building construction [1]	**1,536.5**	**1,632.6**	**1,795.1**	**1,471.5**	**16,460.8**	**13,893.8**	**+4**
Private	**1,406.7**	**1,514.6**	**1,632.2**	**1,349.3**	**15,061.4**	**12,471.8**	**+4**
Public	**129.8**	**118.0**	**162.9**	**122.1**	**1,399.4**	**1,422.0**	**+6**
New dwelling units [2]	914.3	999.3	1,102.7	881.6	10,199.1	8,287.4	+4
Number of new dwelling units	*(89,146)*	*(96,328)*	*(108,115)*	*(94,312)*	*(1,018,382)*	*(909,370)*	*(-5)*
New nonresidential building	460.8	477.7	525.8	457.0	4,691.6	4,225.1	+1
Commercial buildings	140.7	149.4	195.4	134.5	1,556.9	1,306.8	+5
Stores and other mercantile buildings	81.5	81.2	112.8	82.1	857.0	709.7	-1
All other commercial buildings	59.2	68.2	82.6	52.4	699.9	597.1	+13
Community buildings	159.4	171.3	172.7	153.8	1,645.3	1,590.4	+4
Industrial buildings	79.3	77.7	68.4	82.9	676.4	569.4	-4
All other nonresidential buildings	81.4	79.3	89.3	85.7	813.1	758.4	-5
Additions, alterations, and repairs	149.5	144.7	149.4	120.3	1,433.1	1,266.4	+24

Source: Department of Labor. [1] Includes new nonhousekeeping residential building, not shown separately. [2] Housekeeping only.

Chart 5

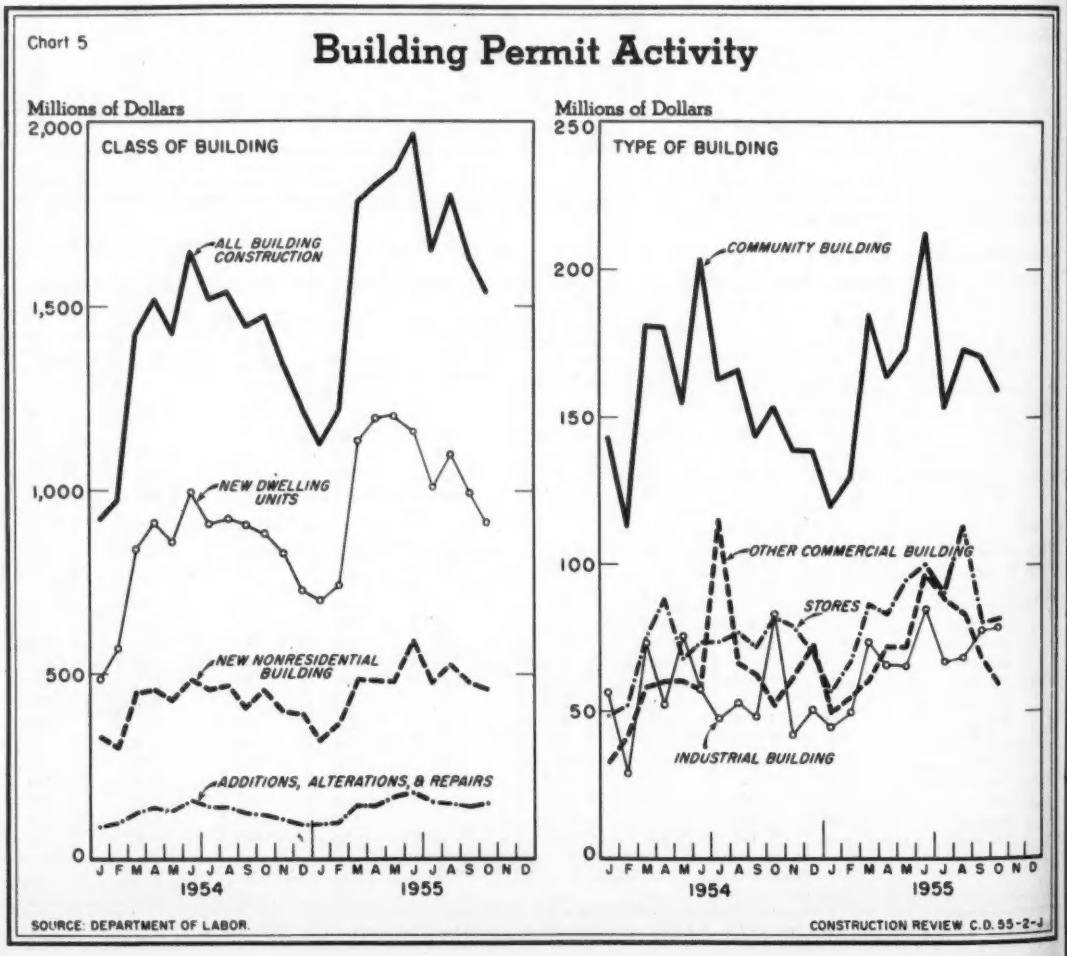


Table 13.--Building Permit Activity: Valuation, by Class of Construction, Type of Building, and Region [1]

Class of construction and type of building	Valuation (in millions of dollars)						Percent change, 1st 9 months 1954-55
	1954	1955			First 9 months		
	Sept.	July	Aug.	Sept.	1954	1955	
UNITED STATES							
All building construction [2]	1,450.5	1,653.4	1,795.1	1,632.6	12,422.3	14,924.3	+20
New dwelling units [3]	906.8	1,016.4	1,102.7	999.3	7,405.8	9,284.8	+25
New nonresidential building	410.0	478.1	525.8	477.7	3,768.1	4,230.8	+12
Commercial buildings	134.3	178.5	195.4	149.4	1,172.3	1,416.2	+21
Amusement buildings	7.9	9.8	7.5	6.7	77.4	81.6	+ 5
Commercial garages	6.5	5.8	8.5	5.7	44.7	51.3	+15
Gasoline and service stations	10.9	11.3	14.5	12.7	89.5	108.3	+21
Office buildings	37.1	61.2	52.1	43.1	333.2	399.6	+20
Stores and other mercantile bldgs.	71.8	90.4	112.8	81.2	627.6	775.5	+24
Community buildings	142.7	153.6	172.7	171.3	1,436.6	1,485.9	+ 3
Educational buildings	88.9	97.4	106.1	108.7	896.7	939.9	+ 5
Institutional buildings	23.3	18.0	26.3	30.2	268.8	237.8	-12
Religious buildings	30.5	38.2	40.4	32.3	271.0	308.0	+14
Garages, private residential	19.3	18.9	20.9	23.7	128.9	148.7	+15
Industrial buildings	48.1	66.7	68.4	77.7	486.5	597.1	+23
Public buildings	35.3	23.9	29.7	13.6	231.6	235.2	+ 2
Public utilities buildings	14.4	20.3	23.4	24.7	156.4	205.2	+31
All other nonresidential buildings	15.9	16.2	15.2	17.3	155.8	142.5	- 9
Additions, alterations, and repairs	126.1	150.8	149.4	144.7	1,146.1	1,283.6	+12
Northeast							
All building construction [2]	292.9	377.1	340.6	356.5	2,811.2	3,215.0	+14
New dwelling units [3]	187.9	237.2	224.4	210.7	1,666.7	2,000.4	+20
New nonresidential building	77.4	106.7	82.6	112.3	862.2	911.0	+ 6
Commercial buildings	24.9	39.2	30.1	33.3	263.3	291.6	+11
Amusement buildings	1.2	1.6	.4	1.1	16.8	12.7	-24
Commercial garages	2.8	1.4	1.2	1.1	14.3	13.3	- 7
Gasoline and service stations	1.7	1.5	2.0	1.9	15.7	17.6	+12
Office buildings	6.0	19.4	9.7	7.1	93.0	105.4	+13
Stores and other mercantile bldgs.	13.3	15.4	16.6	22.0	123.5	142.7	+16
Community buildings	25.7	38.6	28.3	45.4	328.7	347.5	+ 6
Educational buildings	15.4	27.8	16.7	21.9	210.4	226.1	+ 7
Institutional buildings	4.9	1.7	2.8	14.2	62.4	50.7	-19
Religious buildings	5.4	9.0	8.7	9.2	55.8	70.6	+27
Garages, private residential	3.9	4.0	4.1	5.2	29.2	31.6	+ 8
Industrial buildings	12.2	18.1	12.9	13.9	122.8	138.7	+13
Public buildings	4.8	1.9	1.8	3.2	68.3	23.7	-65
Public utilities buildings	2.9	1.8	3.0	6.3	22.2	41.7	+88
All other nonresidential buildings	3.1	3.1	2.5	5.0	27.8	36.1	+30
Additions, alterations, and repairs	26.2	32.0	30.1	32.6	266.9	279.8	+ 5
North Central							
All building construction [2]	430.6	509.4	607.2	559.4	3,688.3	4,539.1	+23
New dwelling units [3]	283.1	315.4	376.0	349.0	2,218.9	2,841.8	+28
New nonresidential building	109.7	145.8	186.9	164.7	1,129.1	1,323.6	+17
Commercial buildings	35.2	47.3	65.1	35.9	332.0	386.4	+16
Amusement buildings	1.6	3.4	1.8	1.2	23.5	26.4	+12
Commercial garages	2.0	2.4	5.0	1.3	16.8	16.1	- 4
Gasoline and service stations	4.1	3.6	4.7	4.3	29.0	34.4	+19
Office buildings	7.1	12.2	15.3	12.2	81.3	94.4	+16
Stores and other mercantile bldgs.	20.4	25.6	38.3	16.9	181.4	215.0	+19
Community buildings	39.0	46.5	65.5	62.8	406.9	482.0	+18
Educational buildings	25.0	31.3	40.2	42.0	251.8	300.4	+19
Institutional buildings	3.6	3.5	11.8	8.1	71.6	83.1	+16
Religious buildings	10.4	11.7	13.5	12.7	83.5	98.5	+18
Garages, private residential	10.8	10.4	12.1	13.5	64.4	78.3	+22
Industrial buildings	14.6	18.9	29.2	37.0	159.6	222.2	+39
Public buildings	3.9	9.6	4.5	5.3	47.9	62.7	+31
Public utilities buildings	3.2	11.5	7.3	7.1	76.7	71.9	- 6
All other nonresidential buildings	3.1	1.7	3.2	3.1	41.6	20.1	-52
Additions, alterations, and repairs	36.2	46.0	41.3	41.9	314.4	353.4	+12

See footnotes at end of table.

Table 13.--Building Permit Activity: Valuation, by Class of Construction, Type of Building, and Region [1] --Continued

Class of construction and type of building	Valuation (in millions of dollars)						Percent change, 1st 9 months 1954-55
	1954	1955			First 9 months		
	Sept.	July	Aug.	Sept.	1954	1955	
	South						
All building construction [2]	389.7	381.5	420.7	367.6	3,091.8	3,681.1	+19
New dwelling units [3]	225.0	214.1	238.2	212.9	1,738.7	2,156.1	+24
New nonresidential building	129.3	124.0	132.5	114.8	1,014.3	1,123.9	+11
Commercial buildings	46.7	56.7	54.5	44.0	348.5	425.2	+22
Amusement buildings	1.8	2.7	3.2	1.6	21.6	27.0	+25
Commercial garages	1.5	.9	1.8	2.7	8.4	16.8	+100
Gasoline and service stations	2.8	4.1	4.9	4.2	27.2	35.2	+29
Office buildings	18.6	21.6	10.9	12.6	93.0	112.9	+21
Stores and other mercantile bldgs.	22.0	27.4	33.9	22.8	198.2	233.4	+18
Community buildings	51.0	36.3	46.2	40.2	401.1	393.9	- 2
Educational buildings	29.3	19.2	24.0	26.0	218.3	218.1	(4)
Institutional buildings	12.0	5.3	8.3	6.7	94.4	74.4	-21
Religious buildings	9.8	11.7	13.8	7.5	88.5	101.5	+15
Garages, private residential	1.7	1.6	1.6	1.9	13.7	14.8	+ 8
Industrial buildings	9.9	14.9	14.0	13.8	117.9	104.8	-11
Public buildings	11.5	5.7	1.8	3.5	61.9	80.9	+31
Public utilities buildings	4.0	3.5	11.3	7.9	32.8	66.9	+104
All other nonresidential buildings	4.6	5.3	3.2	3.7	38.4	37.6	- 2
Additions, alterations, and repairs	32.1	40.7	41.7	35.5	307.1	351.4	+14
	West						
All building construction [2]	337.3	385.4	426.5	349.2	2,831.0	3,489.2	+23
New dwelling units [3]	210.8	249.7	264.2	226.8	1,781.5	2,286.6	+28
New nonresidential building	93.6	101.6	123.8	85.9	762.5	872.3	+14
Commercial buildings	27.5	35.3	45.7	36.3	228.6	313.0	+37
Amusement buildings	3.3	2.1	2.1	2.7	15.4	15.4	0
Commercial garages	.3	1.0	.5	.6	5.3	5.1	- 4
Gasoline and service stations	2.4	2.1	2.9	2.3	17.6	21.2	+20
Office buildings	5.5	8.0	16.2	11.2	65.9	86.9	+32
Stores and other mercantile bldgs.	16.1	22.0	24.0	19.4	124.4	184.3	+48
Community buildings	27.0	32.3	32.8	22.9	299.8	262.4	-12
Educational buildings	19.2	19.1	25.1	18.8	216.3	195.3	-10
Institutional buildings	2.9	7.4	3.3	1.2	40.3	29.7	-26
Religious buildings	4.9	5.8	4.3	3.0	43.2	37.5	-13
Garages, private residential	2.9	2.9	3.0	3.1	21.7	24.0	+11
Industrial buildings	11.5	14.8	12.4	12.9	86.2	131.3	+52
Public buildings	15.2	6.6	21.7	1.6	53.6	68.0	+27
Public utilities buildings	4.3	3.5	1.8	3.5	24.6	24.8	+ 1
All other nonresidential buildings	5.2	6.1	6.4	5.6	48.0	48.8	+ 2
Additions, alterations, and repairs	31.6	32.1	36.3	34.6	257.7	298.9	+16

Source: Department of Labor. [1] Composition of regions, and nonfarm population distribution by region, are shown below table 2. [2] Includes new nonhousekeeping residential building, not shown separately. [3] Housekeeping only. [4] Change of less than one-half of 1 percent.

Table 14.--Building Permit Activity: Valuation and Number of New Dwelling Units, by Type of Structure, Public-Private Ownership, and Region [1]

(Housekeeping units only)

Ownership and type of structure	Valuation *(in millions of dollars)*					Number of dwelling units				
	1954	1955		First 9 months		1954	1955		First 9 months	
	Sept.	Aug.	Sept.	1954	1955	Sept.	Aug.	Sept.	1954	1955
UNITED STATES										
All new dwelling units..	**906.8**	**1,102.7**	**999.3**	**7,405.8**	**9,284.8**	**97,577**	**108,115**	**96,328**	**815,058**	**929,236**
Privately owned	893.8	1,084.5	990.3	7,262.7	9,167.1	96,114	106,284	95,281	798,948	916,581
1-family	837.0	1,017.5	928.2	6,660.1	8,569.5	86,673	95,322	86,088	699,969	821,502
2-4 family.....	24.2	24.7	22.2	224.5	234.3	4,104	3,812	3,379	37,901	37,097
5-or-more family	32.6	42.3	39.9	378.0	363.4	5,337	7,150	5,814	61,078	57,982
Publicly owned	13.0	18.2	9.0	143.1	117.6	1,463	1,831	1,047	16,110	12,655
Northeast										
All new dwelling units..	**187.9**	**224.4**	**210.7**	**1,666.7**	**2,000.4**	**19,503**	**21,525**	**20,049**	**174,118**	**194,794**
Privately owned	175.1	222.3	201.7	1,596.6	1,938.7	18,072	21,247	19,002	166,505	187,959
1-family	158.3	200.5	189.5	1,389.2	1,752.1	15,846	18,574	17,454	138,677	163,671
2-4 family	5.1	4.2	4.2	45.5	46.5	722	600	590	6,728	6,644
5-or-more family	11.8	17.5	8.0	161.8	140.1	1,504	2,073	958	21,100	17,644
Publicly owned	12.8	2.1	9.0	70.2	61.7	1,431	278	1,047	7,613	6,835
North Central										
All new dwelling units..	**283.1**	**376.0**	**349.0**	**2,218.9**	**2,841.8**	**26,126**	**32,792**	**29,412**	**209,332**	**244,870**
Privately owned	283.1	360.2	349.0	2,183.7	2,810.2	26,126	31,283	29,412	205,461	241,692
1-family	271.5	346.6	327.4	2,076.0	2,688.2	24,599	29,161	27,146	191,758	226,831
2-4 family.....	7.1	7.7	6.6	56.6	66.9	914	826	739	6,935	7,512
5-or-more family	4.5	6.0	14.9	51.1	55.1	613	1,296	1,527	6,768	7,349
Publicly owned	0	15.7	0	35.2	31.6	0	1,509	0	3,871	3,178
South										
All new dwelling units..	**225.0**	**238.2**	**212.9**	**1,738.7**	**2,156.1**	**28,214**	**26,781**	**23,449**	**224,325**	**248,770**
Privately owned	224.8	238.0	212.9	1,717.2	2,144.6	28,182	26,757	23,449	221,674	247,470
1-family	214.5	226.2	202.0	1,608.9	2,037.3	25,874	24,268	21,281	197,528	224,470
2-4 family.....	4.7	5.2	4.4	47.3	48.6	1,134	1,096	857	10,421	10,415
5-or-more family	5.5	6.6	6.5	60.9	58.7	1,174	1,393	1,311	13,725	12,585
Publicly owned	.2	.2	0	21.5	11.5	32	24	0	2,651	1,300
West										
All new dwelling units..	**210.8**	**264.2**	**226.8**	**1,781.5**	**2,286.6**	**23,734**	**27,017**	**23,418**	**207,283**	**240,802**
Privately owned.....	210.8	264.0	226.8	1,765.3	2,273.7	23,734	26,997	23,418	205,308	239,460
1-family	192.8	244.1	209.3	1,586.0	2,091.9	20,354	23,319	20,207	172,006	206,530
2-4 family.....	7.4	7.6	7.0	75.2	72.3	1,334	1,290	1,193	13,817	12,526
5-or-more family	10.7	12.3	10.4	104.2	109.4	2,046	2,388	2,018	19,485	20,404
Publicly owned	0	.2	0	16.2	12.8	0	20	0	1,975	1,342

Source: Department of Labor. [1] Composition of regions, and nonfarm population distribution by region, are shown below table 2.

Chart 6.

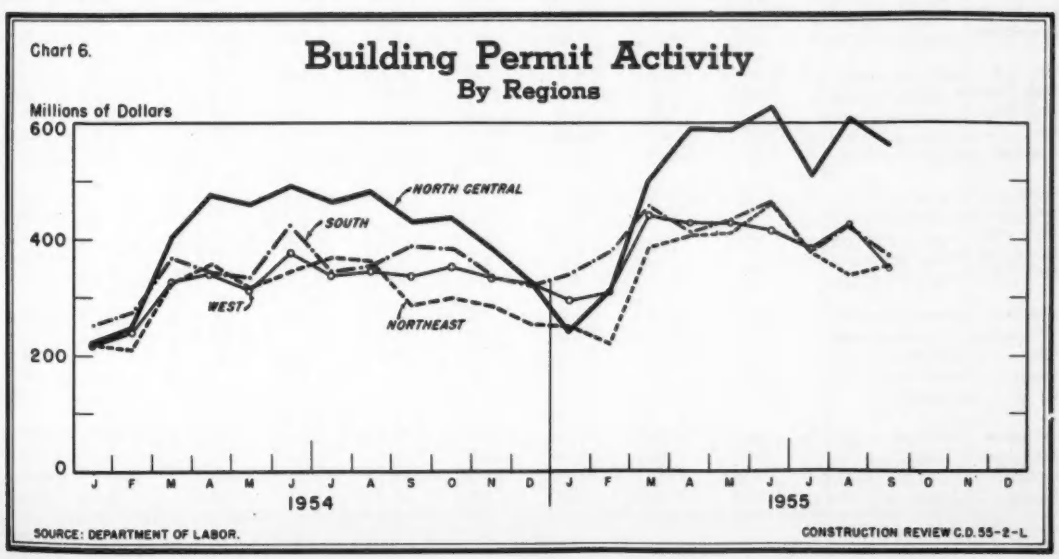


Table 15.--Building Permit Activity: Valuation, by Metropolitan-Nonmetropolitan Location and by State

(Millions of dollars)

State	1954	1955					First 8 months		Percent change, 1st 8 mos. 1954-55
	Aug.	Apr.	May	June	July	Aug.	1954	1955	
ALL STATES	**1,539.8**	**1,841.1**	**1,867.1**	**1,965.1**	**1,653.4**	**1,795.1**	**10,971.8**	**13,291.7**	**+21**
Metropolitan areas	**1,237.5**	**1,464.8**	**1,481.3**	**1,578.7**	**1,322.4**	**1,434.4**	**8,774.7**	**10,666.9**	**+22**
Nonmetropolitan areas	**302.3**	**376.3**	**385.8**	**386.4**	**331.0**	**360.7**	**2,197.1**	**2,624.8**	**+19**
Alabama	13.4	14.3	15.1	16.2	13.4	13.6	88.7	112.2	+26
Arizona	11.3	15.1	14.2	13.3	11.2	15.8	93.9	114.2	+22
Arkansas	5.5	6.5	4.0	4.4	4.0	6.4	56.9	38.7	–32
California	231.7	304.6	289.7	283.8	263.8	296.6	1,685.5	2,164.2	+28
Colorado	26.3	26.1	25.8	24.1	27.9	24.4	154.4	195.2	+26
Connecticut	31.5	39.7	38.3	36.8	31.3	30.6	202.7	249.0	+23
Delaware	5.0	7.1	5.3	6.2	8.1	3.6	36.4	42.5	+17
District of Columbia	2.1	2.7	5.4	15.0	4.9	3.3	36.1	66.6	+84
Florida	50.1	60.9	59.5	69.5	56.8	76.8	419.4	513.4	+22
Georgia	21.1	19.7	22.6	23.7	28.8	28.6	188.6	195.5	+ 4
Idaho	2.6	4.1	4.0	4.0	3.0	3.2	19.5	23.9	+23
Illinois	95.7	131.8	146.5	127.7	109.2	137.7	655.8	885.8	+35
Indiana	34.7	31.4	40.4	38.9	38.2	29.7	234.1	256.7	+10
Iowa	12.0	19.4	18.9	23.2	16.2	16.9	93.5	127.8	+37
Kansas	11.8	17.9	14.7	34.1	12.9	13.7	104.5	134.6	+29
Kentucky	12.3	15.7	17.0	17.7	17.5	22.8	129.2	123.2	– 5
Louisiana	18.8	25.7	25.7	28.6	19.9	25.4	145.9	211.5	+45
Maine	2.7	2.9	2.4	2.7	2.4	2.9	17.7	18.1	+ 2
Maryland	37.1	48.4	52.3	62.5	39.2	41.3	261.0	362.3	+39
Massachusetts	36.0	42.8	45.3	47.1	46.9	35.9	264.5	307.8	+16
Michigan	93.4	115.9	111.3	117.5	101.1	124.3	683.5	779.3	+14
Minnesota	40.4	51.7	44.3	50.3	33.7	45.9	238.7	287.3	+20
Mississippi	6.7	3.6	4.7	6.3	4.0	4.3	39.9	36.2	– 9
Missouri	26.6	33.0	23.4	34.9	30.5	33.7	212.9	233.5	+10
Montana	2.3	4.4	6.3	3.1	4.8	4.8	26.5	28.3	+ 7
Nebraska	7.0	19.0	11.5	10.6	7.2	7.7	50.0	71.8	+44
Nevada	5.8	5.3	8.3	7.7	6.0	3.8	54.0	52.0	– 4
New Hampshire	2.5	5.0	3.6	3.4	6.3	6.7	16.3	31.0	+90
New Jersey	59.7	83.1	79.6	82.3	85.2	64.7	470.0	566.8	+21
New Mexico	5.8	10.3	8.6	9.1	5.9	7.6	49.8	62.6	+26
New York	155.7	148.6	154.8	172.4	121.6	116.3	987.9	1,023.3	+ 4
North Carolina	19.4	18.6	21.2	18.8	18.8	18.8	128.3	157.7	+23
North Dakota	2.9	5.8	4.8	6.1	3.2	3.5	19.0	25.2	+33
Ohio	104.7	116.0	121.6	132.6	111.1	146.0	663.8	845.0	+27
Oklahoma	14.2	20.1	12.1	14.2	12.9	14.9	92.4	113.9	+23
Oregon	17.5	14.2	18.9	15.9	16.2	17.2	100.6	117.2	+17
Pennsylvania	67.8	77.1	82.7	107.5	76.6	77.6	520.4	619.7	+19
Rhode Island	3.5	5.2	4.5	5.4	3.7	3.9	33.0	33.7	+ 2
South Carolina	6.4	6.7	8.2	6.4	6.7	7.0	44.6	65.9	+48
South Dakota	6.3	5.2	4.2	3.5	4.4	4.3	22.2	26.3	+18
Tennessee	16.7	21.7	20.3	21.9	20.5	22.6	143.1	159.2	+11
Texas	79.6	91.6	97.9	89.8	88.1	87.5	584.8	736.6	+26
Utah	10.9	11.5	12.9	16.8	9.3	15.0	63.3	87.3	+38
Vermont	2.1	.9	1.3	.6	3.2	2.0	5.7	9.2	+61
Virginia	40.2	45.3	51.2	54.9	32.5	38.3	265.5	331.9	+25
Washington	27.6	33.4	40.3	36.9	34.3	36.1	232.0	280.9	+21
West Virginia	5.8	5.8	12.1	7.5	5.4	5.4	41.4	46.3	+12
Wisconsin	44.5	43.8	47.3	47.5	41.5	43.9	279.6	306.5	+10
Wyoming	2.1	1.6	2.2	1.8	2.9	2.0	14.2	14.3	+ 1

Source: Department of Labor.

Table 16.--Building Permit Activity: Number of New Dwelling Units, by Metropolitan-Nonmetropolitan Location and by State

(Housekeeping units only)

State	1954	1955					First 8 months		Percent change, 1st 8 mos. 1954-55
	Aug.	Apr.	May	June	July	Aug.	1954	1955	
ALL STATES	99,870	119,306	120,595	115,095	98,150	108,115	717,481	832,908	+16
Metropolitan areas	79,171	94,703	95,780	91,798	77,725	85,860	575,393	663,613	+15
Nonmetropolitan areas	20,699	24,603	24,815	23,297	20,425	22,255	142,088	169,295	+19
Alabama	1,216	1,182	1,292	1,176	1,264	1,250	8,215	9,647	+17
Arizona	1,065	1,409	1,605	1,095	766	1,179	7,502	9,989	+33
Arkansas	246	547	337	301	278	334	2,679	3,056	+14
California	16,821	22,941	20,092	18,373	17,888	19,139	130,320	154,333	+18
Colorado	1,853	1,867	1,705	1,727	1,544	1,648	11,470	14,364	+25
Connecticut	2,031	1,747	2,027	2,091	1,888	1,520	11,982	13,056	+ 9
Delaware	376	624	344	528	550	188	2,399	2,934	+22
District of Columbia	155	200	287	287	192	107	2,127	2,338	+10
Florida	3,473	4,478	4,266	4,739	3,843	4,942	30,533	37,003	+21
Georgia	1,916	1,750	2,038	1,904	1,715	1,874	14,085	14,662	+ 4
Idaho	171	225	261	181	147	189	1,065	1,335	+25
Illinois	5,539	7,425	8,627	6,836	5,631	8,369	36,262	49,367	+36
Indiana	2,039	2,043	2,333	2,338	2,105	1,823	14,797	14,808	(1)
Iowa	728	1,122	1,105	1,337	895	952	5,177	7,011	+35
Kansas	897	1,090	1,119	1,100	956	926	7,164	7,937	+11
Kentucky	837	1,273	1,474	1,182	1,163	1,807	7,749	9,217	+19
Louisiana	1,117	1,087	1,378	1,446	1,072	1,018	9,046	10,165	+12
Maine	101	207	169	191	136	146	815	985	+21
Maryland	3,055	3,087	2,623	2,827	2,095	2,662	20,496	22,465	+10
Massachusetts	2,201	2,630	2,650	2,816	2,069	2,060	15,200	17,624	+16
Michigan	5,760	6,794	6,768	6,816	5,559	6,836	40,551	44,304	+ 9
Minnesota	1,965	2,416	2,226	2,156	1,800	1,908	11,338	13,448	+19
Mississippi	469	327	331	379	312	293	2,821	2,604	- 8
Missouri	1,551	1,655	1,263	1,844	1,717	1,752	11,976	12,669	+ 6
Montana	199	287	311	204	213	198	1,209	1,470	+22
Nebraska	461	769	769	610	522	572	3,299	4,410	+34
Nevada	320	169	595	470	374	257	3,458	2,776	-20
New Hampshire	159	312	276	225	206	230	1,150	1,539	+34
New Jersey	4,477	5,901	5,717	5,141	5,497	4,592	34,119	37,853	+11
New Mexico	585	512	757	617	516	549	4,412	4,709	+ 7
New York	8,423	9,894	10,865	10,955	7,800	8,386	62,151	67,295	+ 8
North Carolina	1,121	1,155	1,373	1,163	995	1,058	8,409	9,570	+14
North Dakota	190	293	277	175	161	180	1,092	1,161	+ 6
Ohio	5,283	6,321	6,912	6,946	5,383	7,155	36,564	43,824	+20
Oklahoma	1,278	1,114	845	894	777	784	7,142	7,503	+ 5
Oregon	620	714	927	699	914	768	5,197	5,775	+11
Pennsylvania	4,260	4,733	4,722	5,212	4,492	4,262	26,516	33,658	+27
Rhode Island	339	321	259	405	293	278	2,481	2,490	(1)
South Carolina	469	475	494	467	414	426	3,153	3,801	+21
South Dakota	199	338	254	322	207	224	1,406	1,648	+17
Tennessee	1,651	1,628	1,875	1,611	1,443	1,541	10,438	12,935	+24
Texas	6,605	6,813	7,017	6,160	5,062	5,560	44,796	51,458	+15
Utah	674	866	680	1,041	576	998	4,324	5,562	+29
Vermont	30	33	47	34	34	51	200	245	+23
Virginia	2,884	3,468	3,989	3,325	2,559	2,630	20,056	23,666	+18
Washington	1,831	2,123	2,149	2,082	1,906	1,940	13,618	16,151	+19
West Virginia	245	357	358	323	300	307	1,967	2,297	+17
Wisconsin	1,819	2,493	2,655	2,245	1,787	2,095	13,580	14,871	+10
Wyoming	166	91	152	99	134	152	975	920	- 6

Source: Department of Labor. [1] Change of less than one-half of 1 percent.

Table 17.--Building Permit Activity: Valuation, in Selected Metropolitan Areas

(Millions of dollars)

Metropolitan area	1954	1955					First 8 months		Percent change, 1st 8 mos. 1954-55
	Aug.	Apr.	May	June	July	Aug.	1954	1955	
Atlanta, Ga.	13.1	11.8	14.5	15.9	19.0	21.3	115.4	128.8	+12
Baltimore, Md.	20.4	23.9	31.4	27.1	22.2	19.5	140.9	193.1	+37
Birmingham, Ala.	4.3	5.5	7.1	6.8	5.3	6.3	32.1	48.1	+50
Boston, Mass.	19.4	25.2	24.2	28.5	24.3	18.7	147.1	169.3	+15
Buffalo, N. Y.	16.3	16.4	15.0	19.0	19.8	14.2	105.3	114.1	+ 8
Chicago, Ill.	89.0	114.4	134.2	115.3	97.3	122.5	584.2	786.2	+35
Cleveland, Ohio	36.0	34.7	33.3	36.4	35.9	40.2	195.0	246.8	+27
Columbus, Ohio	12.9	10.8	16.5	16.1	13.3	27.9	80.5	111.0	+38
Denver, Colo.	18.5	17.2	17.0	14.5	12.7	13.9	104.2	119.5	+15
Detroit, Mich.	60.8	71.4	74.9	79.8	66.3	85.5	461.1	524.2	+14
Indianapolis, Ind.	11.4	8.1	14.4	10.7	11.2	8.4	70.5	73.4	+ 4
Los Angeles, Calif.	125.0	158.9	148.6	141.5	117.5	162.5	863.3	1,102.5	+28
Memphis, Tenn.	7.2	8.5	7.4	8.0	7.0	5.3	57.5	57.4	(1)
Miami, Fla.	16.0	21.4	20.0	26.5	16.4	28.4	146.9	186.7	+27
Milwaukee, Wis.	25.0	16.1	16.6	15.7	15.7	19.3	135.1	124.6	- 8
New York-Northeastern New Jersey	151.7	149.0	153.8	173.4	125.4	119.2	1,035.0	1,065.2	+ 3
Norfolk-Portsmouth, Va.	5.0	7.3	6.4	8.8	3.7	3.0	47.6	45.0	- 5
Phoenix, Ariz.	7.6	10.6	10.2	8.6	7.3	9.1	63.5	77.2	+22
Rochester, N. Y.	6.9	8.9	8.8	9.2	8.6	6.1	42.7	60.5	+42
Salt Lake City, Utah	6.9	6.8	4.3	7.7	4.4	8.5	39.2	44.0	+12
San Diego, Calif.	10.0	16.1	14.1	18.7	13.7	13.9	106.4	116.9	+10
San Francisco-Oakland, Calif.	33.4	49.3	45.2	45.0	56.8	49.4	272.9	358.2	+31
Seattle, Wash.	10.8	15.3	17.3	15.5	14.1	18.6	104.6	128.3	+23
Washington, D. C.	25.9	37.9	35.2	60.4	27.1	29.2	198.7	290.9	+46

Source: Department of Labor.

[1] Change of less than one-half of 1 percent.

Table 18.--Building Permit Activity: Number of New Dwelling Units, in Selected Metropolitan Areas

(Housekeeping only)

Metropolitan area	1954	1955					First 8 months		Percent change, 1st 8 mos. 1954-55
	Aug.	Apr.	May	June	July	Aug.	1954	1955	
Atlanta, Ga.	1,182	1,035	1,216	1,125	990	1,186	8,266	8,698	+ 5
Baltimore, Md.	1,393	1,440	1,091	1,190	1,050	1,304	9,910	11,165	+13
Birmingham, Ala.	487	476	548	522	412	564	3,114	3,818	+23
Boston, Mass.	1,087	1,180	1,073	1,297	1,071	1,035	7,365	8,255	+12
Buffalo, N. Y.	1,100	1,162	1,154	1,205	1,483	1,075	6,336	8,166	+29
Chicago, Ill.	5,160	6,365	7,865	6,082	4,963	7,555	33,054	44,005	+33
Cleveland, Ohio	1,450	1,755	1,487	1,700	1,452	1,756	8,910	11,136	+25
Columbus, Ohio	679	582	955	1,040	771	946	5,046	5,751	+14
Denver, Colo.	1,259	1,294	1,084	1,129	981	993	7,623	9,814	+29
Detroit, Mich.	3,777	4,372	4,545	4,423	3,358	4,559	27,576	29,199	+ 6
Indianapolis, Ind.	512	564	622	747	646	511	4,191	4,243	+ 1
Los Angeles, Calif.	9,041	12,027	10,431	9,449	8,102	9,037	67,885	77,161	+14
Memphis, Tenn.	916	668	879	635	595	448	4,594	5,606	+22
Miami, Fla.	993	1,520	1,360	1,405	1,086	1,648	10,355	11,891	+15
Milwaukee, Wis.	809	790	942	841	679	825	6,516	5,790	-11
New York-Northeastern New Jersey	8,218	10,040	11,017	11,079	7,642	8,078	65,947	69,341	+ 5
Norfolk-Portsmouth, Va.	557	813	758	520	412	247	4,297	4,184	- 3
Phoenix, Ariz.	753	986	1,333	647	503	793	5,600	7,301	+30
Rochester, N. Y.	434	569	539	565	501	427	2,593	3,500	+35
Salt Lake City, Utah	371	492	278	621	296	578	2,735	3,105	+14
San Diego, Calif.	653	960	958	943	1,057	904	6,812	7,790	+14
San Francisco-Oakland, Calif.	2,249	3,639	2,934	2,807	3,199	2,955	18,743	23,397	+25
Seattle, Wash.	703	1,012	958	842	929	1,005	6,402	7,527	+18
Washington, D. C.	2,273	2,495	2,499	2,704	1,604	1,561	16,074	16,781	+ 4

Source: Department of Labor.

Table 19.--Building Permit Activity: Valuation in Selected Metropolitan Areas by Class of Construction and Type of Building

August 1955 *(Thousands of dollars)*

Class of construction and type of building	Atlanta, Ga.	Baltimore, Md.	Birmingham, Ala.	Boston, Mass.	Buffalo, N. Y.	Chicago, Ill.	Cleveland, Ohio	Columbus, Ohio
All building construction [1]	**21,256**	**19,494**	**6,337**	**18,713**	**14,202**	**122,484**	**40,163**	**27,870**
New dwelling units [2]	10,886	13,551	4,420	10,777	10,255	90,529	25,976	12,631
New nonresidential building	8,547	4,513	1,099	5,061	2,342	26,380	11,338	13,852
Commercial buildings	4,282	996	438	1,013	467	7,824	2,443	4,617
Amusement buildings	0	9	0	46	29	598	5	104
Commercial garages	888	60	2	202	61	347	20	0
Gasoline and service stations	123	71	72	70	44	409	132	67
Office buildings	1,686	299	66	77	104	2,081	1,520	375
Stores and other mercantile bldgs.	1,586	557	298	618	229	4,390	766	4,071
Community buildings	889	1,518	481	3,195	683	9,120	4,635	3,350
Educational buildings	310	865	383	2,195	175	7,200	3,410	2,600
Institutional buildings	47	77	0	0	362	100	200	750
Religious buildings	532	576	98	1,000	146	1,820	1,025	0
Garages, private residential	19	70	26	144	414	2,321	753	189
Industrial buildings	2,757	1,656	103	400	23	3,855	1,784	5,614
Public buildings	0	0	44	0	40	57	1,459	0
Public utilities buildings	583	155	0	246	455	2,932	175	10
All other nonresidential buildings	18	118	7	64	260	271	89	72
Additions, alterations, and repairs	1,822	1,420	786	2,829	1,323	5,455	2,502	1,257

Class of construction and type of building	Denver, Colo.	Detroit, Mich.	Indianapolis, Ind.	Los Angeles, Calif.	Memphis, Tenn.	Miami, Fla.	Milwaukee, Wis.	New York-Northeastern New Jersey
All building construction [1]	**13,897**	**85,451**	**8,370**	**162,495**	**5,289**	**28,405**	**19,278**	**119,233**
New dwelling units [2]	8,952	52,457	6,477	91,406	2,842	14,730	10,147	86,744
New nonresidential building	3,739	27,743	1,272	56,930	1,521	9,362	7,652	24,139
Commercial buildings	1,537	16,399	813	15,211	1,371	6,888	2,697	9,350
Amusement buildings	310	220	60	613	0	93	0	147
Commercial garages	0	3,961	12	107	0	6	218	91
Gasoline and service stations	151	353	101	213	0	96	203	478
Office buildings	208	794	172	5,333	0	1,866	2,025	2,825
Stores and other mercantile bldgs.	868	11,071	469	8,944	1,371	4,828	252	5,810
Community buildings	1,457	4,081	171	10,823	25	1,377	3,437	6,082
Educational buildings	1,331	1,925	57	7,959	0	464	2,937	1,266
Institutional buildings	0	591	0	2,239	0	175	0	1,221
Religious buildings	126	1,565	114	626	25	738	500	3,595
Garages, private residential	252	2,576	193	813	103	83	423	1,244
Industrial buildings	444	3,758	20	6,211	0	624	521	4,918
Public buildings	0	419	32	20,002	0	6	60	313
Public utilities buildings	0	167	35	160	0	70	175	1,407
All other nonresidential buildings	49	344	8	3,710	22	314	339	824
Additions, alterations, and repairs	1,153	4,984	621	13,310	904	3,982	1,473	7,811

Class of construction and type of building	Norfolk-Portsmouth, Va.	Phoenix, Ariz.	Rochester, N. Y.	Salt Lake City, Utah	San Diego, Calif.	San Francisco-Oakland, Calif.	Seattle, Wash.	Washington, D. C.
All building construction [1]	**3,023**	**9,064**	**6,075**	**8,534**	**13,932**	**49,430**	**18,623**	**29,208**
New dwelling units [2]	1,932	5,969	4,870	7,204	9,180	30,730	11,739	17,432
New nonresidential building	826	2,475	666	981	3,550	14,568	5,316	8,852
Commercial buildings	289	1,229	468	522	542	9,599	3,251	3,931
Amusement buildings	27	188	0	0	58	468	0	45
Commercial garages	15	28	7	0	17	17	0	0
Gasoline and service stations	70	54	168	330	37	266	139	209
Office buildings	29	104	20	44	171	4,523	1,509	581
Stores and other mercantile bldgs.	148	856	273	149	259	4,325	1,603	3,096
Community buildings	74	726	0	200	2,318	1,867	1,544	4,706
Educational buildings	0	641	0	160	2,162	1,425	1,112	3,904
Institutional buildings	0	0	0	0	0	0	136	0
Religious buildings	74	85	0	40	156	443	296	802
Garages, private residential	54	8	128	96	168	271	89	52
Industrial buildings	397	339	40	125	515	2,030	339	11
Public buildings	0	97	0	0	0	12	0	0
Public utilities buildings	2	5	15	0	0	57	11	75
All other nonresidential buildings	10	71	16	39	7	733	82	77
Additions, alterations, and repairs	266	596	539	336	1,202	3,921	1,534	2,387

Source: Department of Labor. [1] Includes new nonhousekeeping residential building, not shown separately. [2] Housekeeping only.

Part IV--Contract Awards

Table 20.--Contract Awards: Public Construction, by Ownership and Type of Construction [1]

Ownership and type of construction [2]	Value (*in millions of dollars*)									Percent change, first 9 months 1954-55
	1954	1955						First 9 months		
	Sept.	Apr.	May	June	July	Aug.	Sept.	1954	1955	
ALL PUBLIC CONSTRUCTION	**723.5**	**776.3**	**811.1**	**1,083.9**	**704.0**	**718.0**	**733.3**	**6,266.6**	**6,633.2**	**+6**
FEDERALLY OWNED	**109.1**	**118.0**	**114.6**	**308.1**	**42.3**	**55.1**	**122.0**	**1,090.7**	**1,062.7**	**-3**
Residential building	.3	.1	.8	10.4	1.2	0	.1	3.9	20.9	(3)
Nonresidential building	55.9	74.7	61.7	226.7	24.5	35.2	61.3	685.9	659.1	-4
Educational	1.3	1.2	.2	.9	.8	.2	4.6	11.4	8.3	-27
Hospital and institutional	4.2	6.7	2.9	40.3	1.2	2.6	3.3	47.9	70.0	+46
Administrative and general	4.7	3.5	4.7	7.9	.9	2.2	20.4	30.7	49.9	+63
Other nonresidential building	45.7	63.3	53.9	177.6	21.6	30.2	33.0	595.9	530.9	-11
Airfield building	1.7	10.4	9.3	27.3	1.2	.4	1.8	66.1	87.6	+33
Industrial	23.5	18.3	16.1	86.6	7.3	10.1	15.6	328.3	219.9	-33
Troop housing	8.5	11.0	5.7	11.3	.7	3.1	1.5	34.6	43.9	+27
Warehouses	1.6	6.3	6.3	25.5	7.8	11.0	2.9	76.6	75.1	-2
All other	10.4	17.3	16.5	26.9	4.6	5.6	11.2	90.3	104.4	+16
Airfields	14.1	17.9	9.7	18.3	2.7	3.8	4.6	128.1	106.1	-17
Conservation and development	23.8	12.4	26.8	28.3	8.7	6.3	48.0	132.3	169.6	+28
Highway	6.4	5.4	4.8	9.7	4.5	4.8	6.0	46.9	46.9	0
Electric power utilities	5.0	3.2	5.6	3.3	(4)	1.8	.6	46.1	23.2	-50
All other federally owned	3.6	4.3	5.2	11.4	.7	3.2	1.4	47.5	36.9	-22
STATE AND LOCALLY OWNED	**614.4**	**658.3**	**696.5**	**775.8**	**661.7**	**662.9**	**611.3**	**5,175.9**	**5,570.5**	**+8**
Residential building	28.7	14.5	27.2	19.4	18.1	27.5	17.7	222.6	165.4	-26
Nonresidential building	261.4	246.6	251.7	262.1	284.9	219.0	208.2	2,194.7	2,141.4	-2
Educational	177.8	199.7	186.2	182.8	215.7	146.2	159.7	1,586.5	1,566.0	-1
Hospital and institutional	22.5	15.7	26.9	19.4	15.5	14.0	16.9	193.8	151.5	-22
Administrative and general	39.2	14.0	18.2	27.7	22.5	35.5	13.2	202.8	198.7	-2
Other nonresidential building	21.9	17.2	20.4	32.2	31.2	23.3	18.4	211.6	225.2	+6
Highway	240.9	268.7	238.8	349.7	255.8	282.0	242.1	1,990.9	2,167.8	+9
Sewerage systems	37.1	46.3	37.4	49.1	38.7	43.2	65.8	345.8	388.4	+12
Water supply facilities	25.5	26.8	27.1	27.3	26.5	39.4	37.0	213.4	263.9	+24
Utilities	12.4	43.8	102.3	57.5	28.0	40.3	24.2	128.7	346.0	+169
Electric power	3.3	34.2	85.0	36.7	4.7	21.1	9.7	62.9	201.6	+221
Other utilities	9.1	9.6	17.3	20.8	23.3	19.2	14.5	65.8	144.4	+119
All other State and locally owned	8.4	11.6	12.0	10.7	9.7	11.5	16.3	79.8	97.6	+22

Source: Departments of Commerce and Labor. [1] Includes major force-account projects started principally by TVA and State highway departments. [2] Types not shown separately are included in the appropriate "other" category. [3] Less than $50,000. [4] Percent increase exceeds 300.

Table 21.--Contract Awards: Highway Construction, by Ownership, Source of Funds, and Type of Facility [1]

Ownership, source of funds, and type of facility	Value (*in millions of dollars*)									Percent change, first 9 months 1954-55
	1954	1955						First 9 months		
	Sept.	Apr.	May	June	July	Aug.	Sept.	1954	1955	
ALL HIGHWAY CONSTRUCTION	**247.3**	**274.1**	**243.6**	**359.4**	**260.3**	**286.8**	**248.1**	**2,037.8**	**2,214.7**	**+9**
FEDERALLY OWNED	**6.4**	**5.4**	**4.8**	**9.7**	**4.5**	**4.8**	**6.0**	**46.9**	**46.9**	**0**
STATE OWNED	**207.5**	**236.5**	**190.2**	**296.4**	**204.3**	**242.2**	**207.1**	**1,673.2**	**1,857.7**	**+11**
Federally aided projects:										
Total value	106.6	112.1	99.6	139.3	115.3	140.2	114.0	905.1	933.8	+3
Federal funds	55.3	61.1	52.7	72.9	61.4	72.0	59.3	466.0	493.8	+6
Independent State projects:										
Total value	100.9	124.4	90.6	157.1	89.0	102.0	93.1	768.1	923.9	+20
Toll facilities	37.0	69.8	37.0	84.7	30.0	45.2	38.8	274.9	470.9	+71
LOCALLY OWNED [2]	**33.4**	**32.2**	**48.6**	**53.3**	**51.5**	**39.8**	**35.0**	**317.7**	**310.1**	**-2**

Source: Departments of Commerce and Labor. [1] Includes force-account work started on Federal and State projects. [2] By municipalities and counties.

Chart 7.

Contracts Awarded on Public Construction

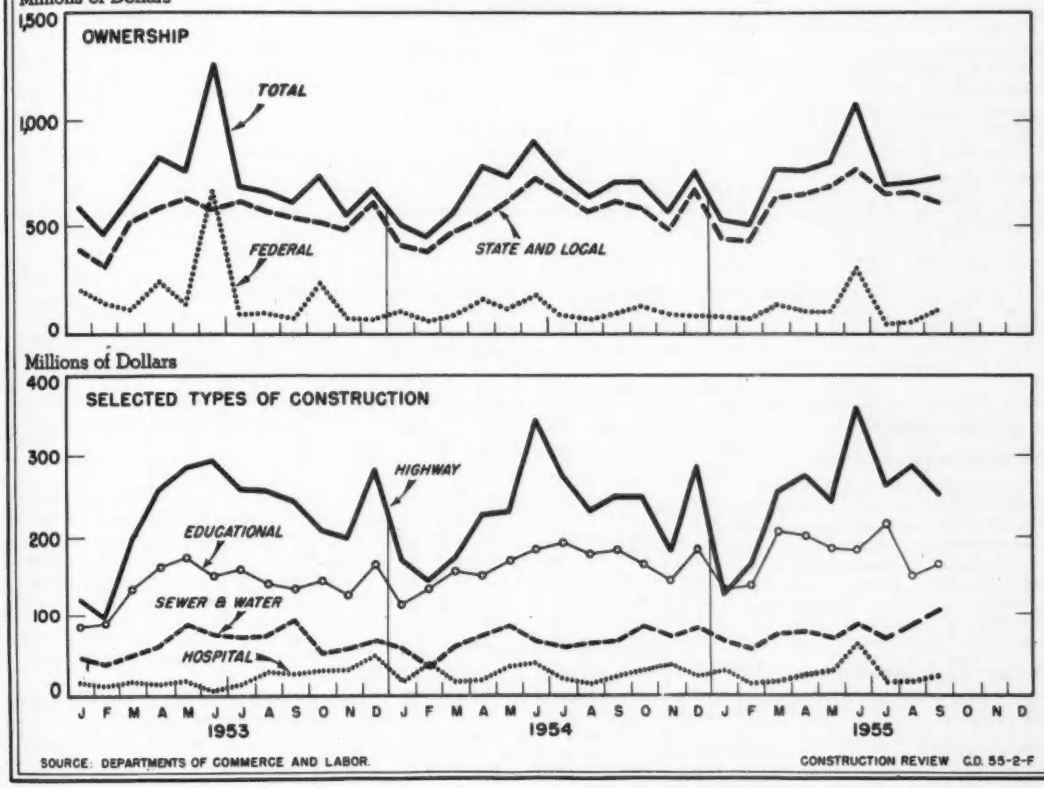


Table 22.--Contracts Awarded in 37 Eastern States

Type of construction	Value *(in millions of dollars)*			Percent change		
				October 1955 from--		
	October 1955	September 1955	First 10 months, 1955	Sept. 1955	Oct. 1954	First 10 months, 1954-55
TOTAL	**1,863**	**2,035**	**20,028**	**- 8**	**- 5**	**+22**
Building construction	1,475	1,442	15,856	+ 2	- 3	+22
Residential	783	733	8,748	+ 7	- 8	+24
Nonresidential	692	709	7,108	- 2	+ 3	+20
Engineering	388	593	4,172	-35	-12	+20
Public works	277	368	2,985	-25	-19	+14
Utilities	111	225	1,187	-50	+11	+38

Source: Compiled by Department of Commerce from data reported by F. W. Dodge Corporation.

Part V--Costs

Table 23.--Construction Cost Indexes

Compiler and coverage	Indexes (1947-49 = 100)									Percent change, Oct. 1954-55
	1955						1952	1953	1954	
	May	June	July	Aug.	Sept.	Oct.	Oct.	Oct.	Oct.	
American Appraisal Company	128.1	128.5	130.0	130.4	130.6	131.1	119.6	124.3	127.0	+ 3
Associated General Contractors	134.5	135.8	137.0	137.0	136.4	137.3	122.8	129.3	133.6	+ 3
E. H. Boeckh and Associates (20 city average):										
Residences	123.3	124.2	124.6	124.9	125.2	125.5	120.2	121.4	121.0	+ 4
Apartments, hotels, and office buildings	129.5	130.5	131.5	131.8	132.3	132.6	123.8	127.1	127.6	+ 4
Commercial and factory buildings	130.6	131.4	133.1	133.4	133.8	134.1	123.9	127.7	128.7	+ 4
Engineering News-Record (as of Nov. 1):										
Building	137.5	138.3	141.4	141.7	142.0	141.8	126.0	128.9	135.0	+ 5
Construction	144.8	145.7	148.4	148.5	148.8	148.6	129.9	135.0	141.8	+ 5
Department of Commerce composite [1]	123.8	124.6	125.8	126.2	126.5	126.9	120.4	122.6	122.6	+ 4

Source: Department of Commerce. [1] A composite of cost indexes representative of the major types of construction, weighted by the current relative importance of each type.

Table 24.--Indexes of Wholesale Prices of Building Materials, by Selected Classes

Commodity	Indexes (1947-49 = 100)									Percent change, Oct. 1954-55
	1955						1952	1953	1954	
	May	June	July	Aug.	Sept.	Oct.	Oct.	Oct.	Oct.	
ALL BUILDING MATERIALS [1]	**124.1**	**124.1**	**125.7**	**127.4**	**128.5**	**128.7**	**118.6**	**120.0**	**121.7**	**+ 6**
LUMBER AND WOOD PRODUCTS:										
Lumber	124.2	124.7	125.1	126.4	127.1	126.9	120.2	117.2	119.5	+ 6
Douglas fir	130.5	131.9	132.3	134.1	134.7	132.4	125.8	111.0	127.3	+ 4
Southern pine	114.0	113.4	113.6	115.3	116.6	117.0	118.0	114.2	114.5	+ 2
Other softwoods	137.3	137.8	138.2	138.4	138.6	139.0	129.3	130.4	130.7	+ 6
Hardwoods	117.9	118.2	118.9	120.4	121.3	122.3	110.8	115.6	111.6	+10
Millwork	129.3	128.3	128.3	128.3	128.2	128.2	127.7	131.2	130.2	- 2
Plywood	105.6	105.6	105.7	105.7	106.1	106.1	106.1	104.7	104.3	+ 2
Softwood	110.5	110.5	110.7	110.7	110.7	110.7	113.1	99.0	110.3	0
Hardwood	102.6	102.6	102.6	102.6	103.6	103.6	101.1	108.6	100.1	+ 4
PAINT AND PAINT MATERIALS:										
Prepared paint	114.8	114.8	114.8	114.8	114.8	115.0	110.6	112.1	112.8	+ 2
Paint materials	97.0	96.9	97.1	97.6	97.6	97.4	96.8	98.0	97.2	0
METAL PRODUCTS:										
Structural shapes	146.2	146.2	157.5	157.5	157.5	157.5	134.9	141.9	146.2	+ 8
Hardware, finish	139.9	139.9	139.9	139.9	140.8	143.9	122.3	136.6	138.0	+ 4
Plumbing equipment	123.3	123.2	123.2	128.1	128.1	129.4	118.1	118.2	118.7	+ 9
Enameled iron fixtures	129.3	129.3	129.3	131.9	131.9	131.9	122.6	129.2	129.2	+ 2
Vitreous china fixtures	117.3	117.3	117.3	123.0	122.9	123.1	123.0	111.7	111.7	+10
Brass fittings	123.4	123.4	123.4	129.4	129.4	131.7	113.1	115.9	117.1	+13
Heating equipment	113.5	113.5	113.6	116.0	117.2	117.3	113.7	115.8	114.3	+ 3
Furnaces	119.8	119.8	119.8	122.8	123.2	123.2	117.4	121.0	121.1	+ 2
Water heaters	107.4	107.4	107.4	110.9	112.0	112.0	113.3	111.0	108.2	+ 4
Metal sash	133.2	133.2	144.2	146.4	146.4	146.3	117.7	127.3	132.5	+10
NONMETALLIC MINERAL PRODUCTS:										
Glass, plate	132.0	132.0	137.5	137.5	137.5	137.5	120.9	132.0	132.0	+ 4
Glass, window	135.1	138.8	138.8	138.8	138.8	145.5	118.0	131.3	131.3	+11
Concrete ingredients	124.7	124.9	125.0	125.3	125.3	125.6	113.0	119.4	122.1	+ 3
Portland cement	131.5	131.6	131.8	131.8	131.7	132.2	116.4	124.4	128.3	+ 3
Concrete products	118.2	118.3	118.3	118.6	119.8	120.1	112.7	117.4	117.8	+ 2
Structural clay products	137.0	137.3	141.3	142.9	143.9	144.2	124.0	132.0	135.4	+ 7
Gypsum products	122.1	122.1	122.1	122.1	122.1	122.1	117.7	122.1	122.1	0
Asphalt roofing	105.8	106.7	110.8	114.5	114.6	114.6	106.0	109.9	106.1	+ 8
Insulation materials	106.7	106.7	106.7	106.7	107.1	107.1	106.8	108.1	110.1	- 3
MISCELLANEOUS PRODUCTS:										
Building board	129.7	129.7	129.7	132.7	132.7	132.7	115.8	123.0	127.6	+ 4
Kitchen cabinets, metal	128.2	128.2	131.7	133.9	136.5	136.5	125.2	127.2	127.6	+ 7

Source: Department of Labor. [1] Includes items not shown separately.

Table 25.--Wholesale Prices of Selected Building Materials

Commodity	Unit	1955		1954
		Sept.	Aug.	Sept.
LUMBER				
Douglas fir:				
Dimension, No. 1, 25% No. 2, green, S4S, 2"x4", R.L., mixed c/l, f.o.b. mill	*M bd. ft.*	$77.259	$77.805	$72.318
Boards, No. 1, 25% No. 2, green, S4S, R.L., 1"x8", loose, mixed c/l of boards and dimension, f.o.b. mill	*M bd. ft.*	70.364	70.037	65.814
Timbers, No. 1, 8"x8" to 12"x12", R.L., green, f.o.b. mill	*M bd. ft.*	82.263	79.870	67.736
Southern pine:				
Dimension, No. 2 and better, 2"x4"x16', dry, S.L., S4S, f.o.b. mill	*M bd. ft.*	83.442	82.278	79.231
Boards, No. 2 and better, 1"x6", dry, R.L., S4S, f.o.b. mill	*M bd. ft.*	80.155	78.922	75.218
Ponderosa pine boards, No. 3 common, 1"x8", R.L., S2 or 4S, c/l or mixed cars, f.o.b. mill	*M bd. ft.*	80.740	80.760	71.620
Oak, red, flooring, plain, 25/32" thick, 2-1/4" face, select, f.o.b. mill	*M bd. ft.*	196.943	194.346	170.503
Maple flooring, 2d grade, 25/32"x2-1/4" face, f.o.b. mill	*M bd. ft.*	186.559	187.879	174.696
Poplar, plain, No. 2B common, 4/4", R.W., f.o.b. mill	*M bd. ft.*	55.000	55.000	59.000
Beech, No. 2 common, 4/4", R.W. & L., f.o.b. mill	*M bd. ft.*	52.000	47.000	47.000
MILLWORK				
Door, Douglas fir, interior, 2 plywood panels, 2'6"x6'8"x1-3/8", f.o.b. factory	*Each*	4.729	4.829	4.776
Door frame, ponderosa pine, exterior, 1-5/16"x2" casing, with sill, f.o.b. factory	*Each*	9.326	9.326	9.214
Window, ponderosa pine, 2-light, check rail, open, f.o.b. factory	*Each*	1.662	1.662	1.642
PLYWOOD				
Douglas fir, interior, grade A-D, 1/4"x48"x96", f.o.b. mill	*M sq. ft.*	80.807	80.807	80.807
Douglas fir, interior, grade C-D, 5/16"x48"x96", f.o.b. mill	*M sq. ft.*	70.660	70.660	67.478
BOARD				
Insulation, fiber, 1/2"x48"x96", interior, f.o.b. plant, freight equalized	*M sq. ft.*	55.000	55.000	53.000
PREPARED PAINT				
Emulsion, water-thinned, inside, delivered	*Gallon*	2.399	2.399	2.372
Varnish, floor, first grade, delivered	*Gallon*	3.767	3.706	3.682
Enamel, white, gloss, first grade, delivered	*Gallon*	4.628	4.628	4.497
Inside, flat, white, first grade, delivered	*Gallon*	2.945	2.945	2.868
Outside, white, first grade, delivered	*Gallon*	4.348	4.348	4.342
METAL PRODUCTS				
Structural shapes, carbon steel, 6"x4"x1/2" angles, 30' long, ASTM spec. A-7, base quantity, f.o.b. mill	*100 lb.*	4.867	4.867	4.517
Bars, reinforcing, carbon steel, 3/4" rounds x 30' long with 10% shorts, spec. ASTM A-15, 50T, base quantity, f.o.b. mill	*100 lb.*	5.313	5.313	5.058
Sheets, galvanized, carbon steel, 24 gage x 30" wide x 96" long, commercial coating, base chemistry, base packaging, base quantity, f.o.b. mill	*100 lb.*	7.690	7.690	7.220
Pipe, standard, black, carbon steel, buttweld, threaded and coupled, 1-1/4" nominal, random lengths, wt. 228 lbs., f.o.b. mill	*100 ft.*	16.366	16.366	15.000
Pipe, standard, galvanized, carbon steel, buttweld, threaded and coupled, 1-1/4" nominal, random lengths, wt. 228 lbs., f.o.b. mill	*100 ft.*	19.971	19.971	18.605
Nails, wire, carbon steel, 8-penny, common, c/l, f.o.b. mill	*100 lb. keg*	8.618	8.618	7.815
Soil pipe, cast iron, 2" to 6", single and double hub, service pipe, extra heavy, f.o.b. foundry, index number (1947-49 = 100)	*Ton*	(111.3)	(111.3)	(105.5)
Aluminum sheets, 3003-H14, hard alloy, mill finish, 0.64"x48"x144", 30,000 lbs. or over, f.o.b. shipping point, freight allowed	*Pound*	$0.393	$0.393	(1)
Copper water tubing, type L, 3/4" size, 0.045" thick, 2,000 ft. or more in 60' coils (0.455 lbs. per linear ft.), f.o.b. mill, freight allowed	*Foot*	.317	.293	$0.253
Wire, building, type R, size 12, single braid, f.o.b. destination, or freight prepaid on specified amounts	*M ft.*	17.510	15.725	11.475
Screening, insect, bronze wire, 18x14 mesh, 30" wide, c/l, f.o.b. factory	*Linear ft. roll*	25.840	25.840	24.540
PLUMBING EQUIPMENT				
Bath tub, enameled iron, 5', recessed, f.o.b. factory, freight allowed	*Each*	55.113	55.113	53.841
Lavatory, enameled iron, 20"x18", f.o.b. plant, freight allowed	*Each*	13.500	13.500	12.858
Water closet, vitreous china, close coupled, reverse trap, f.o.b. plant, freight allowed	*Each*	24.328	24.363	21.778
Sink, enameled steel, 32"x21", flat rim, 2-compartment, acid resisting, without drainboard, f.o.b. plant, freight allowed	*Each*	16.634	16.634	16.057

See footnotes at end of table.

Table 25.--Wholesale Prices of Selected Building Materials--Continued

Commodity	Unit	1955		1954
		Sept.	Aug.	Sept.
HEATING EQUIPMENT				
Boiler, heating, steel, oil fired, steam rating 400 sq. ft., less burner, with jacket and standard trim, f.o.b. factory, freight allowed	*Each*	$186.122	$186.122	$184.880
Convector, nonferrous, free standing, average steam rating 43 sq. ft., E.D.R., f.o.b. factory, freight allowance	*Sq. ft., incl. enclosure*	.442	.438	.432
Furnace, warm air:				
Steel, oil fired, forced air, gun-type burner, average bonnet output 90,000-115,000 BTU per hr., f.o.b. factory, freight allowance	*Each*	252.612	249.966	252.052
Steel, gas fired, standard automatic controls, average input rating 85,000-110,000 BTU per hr., enclosing jacket, f.o.b. factory, freight allowance	*Each*	166.051	166.051	168.144
Furnace, floor, gas fired, floor grill, average input rating 40,000-60,000 BTU per hr., manual controls, f.o.b. factory	*Each*	60.306	61.370	56.967
Oil burner, mechanical forced draft (gun-type) 2-1/2 gal. per hr., thermostat, limit and stack controls, f.o.b. factory	*Each*	102.100	100.850	104.245
Water heater, gas, automatic, 30-gal. storage tank, galvanized steel, 1-year guarantee, f.o.b. factory, freight allowed	*Each*	40.954	40.954	39.079
NONMETALLIC MINERAL PRODUCTS				
Sand, construction, f.o.b. plant	*Ton*	1.195	1.195	1.148
Gravel, for concrete, 1-1/2" maximum, f.o.b. plant	*Ton*	1.437	1.437	1.373
Crushed stone, for concrete, 1-1/2" maximum, f.o.b. plant	*Ton*	1.597	1.597	1.551
Block, concrete, lightweight aggregate, 8"x8"x16", f.o.b. plant	*Each*	.176	.175	.180
Pipe, concrete, culvert, reinforced, 24" diameter, ASTM spec. C76-41 table 1, 3" wall thickness, 3'-8' lengths, delivered	*Foot*	3.910	3.840	3.646
Brick, building, f.o.b. plant	*Thousand*	29.451	29.308	28.382
Brick, face, red, first quality, textured, f.o.b. plant	*Thousand*	38.207	37.717	36.807
Tile, clay, partition, scored, 4"x12"x12", 3-cell, 16 lbs., f.o.b. plant	*Thousand*	130.431	126.629	122.219
Sewer pipe, vitrified clay, 8" diameter, 3' lengths, standard strength, f.o.b. plant	*Foot*	.497	.488	.457
Lath, gypsum, 3/8"x16"x48", f.o.b. plant, freight equalized	*M sq. ft.*	24.010	24.010	24.010
Wallboard, gypsum, 3/8"x48", varying lengths, f.o.b. plant, freight equalized	*M sq. ft.*	31.850	31.850	31.850
Plaster, gypsum, base coat, f.o.b. plant, freight equalized	*Ton*	14.948	14.948	14.948
Shingles, asphalt, strip, 210 lbs., f.o.b. factory, freight allowance	*Square*	5.762	5.762	5.205
Lime, hydrated, building, finishing, f.o.b. plant	*Ton*	19.972	19.889	17.914
Siding shingles, asbestos cement, f.o.b. plant, freight equalized	*Square*	10.306	10.306	9.697

Source: Department of Labor. [1] Not available.

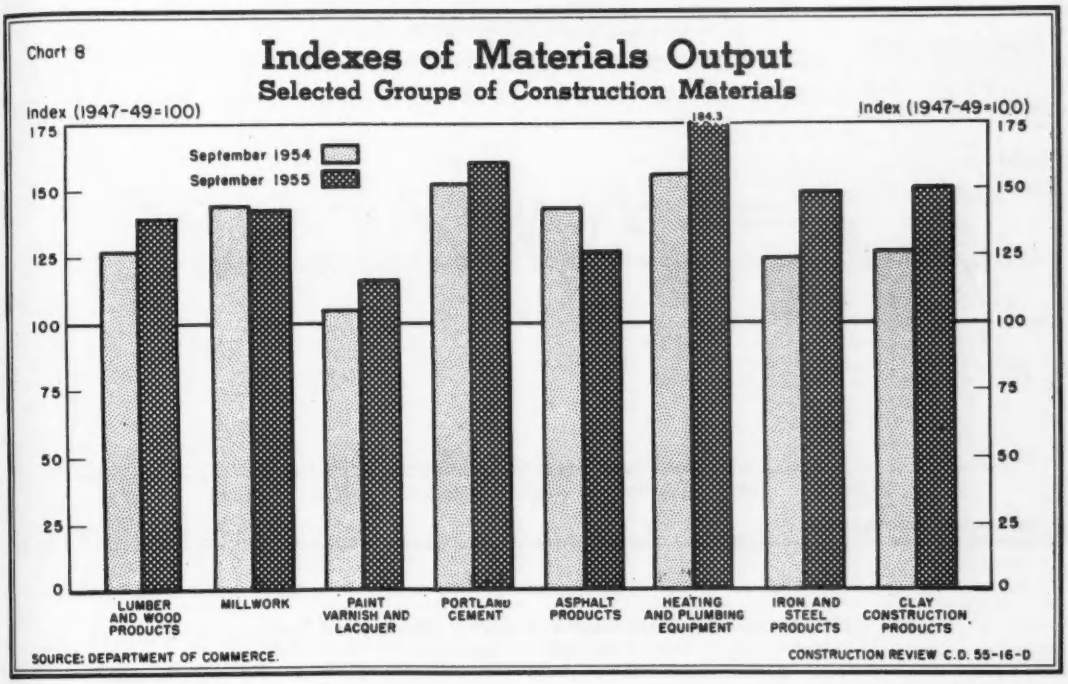


Table 26.--Construction Materials: Indexes of Output

(Monthly average 1947-49 = 100)

Materials group	Monthly Indexes												
	1954				1955								
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Lumber and wood products	126.6	133.5	127.5	124.9	117.7	116.7	136.4	129.9	136.6	142.3	119.6	146.0	139.7
Millwork	144.5	143.5	131.8	134.8	131.4	131.0	155.2	140.3	128.7	135.9	108.8	141.7	143.1
Paint, varnish, and lacquer	104.9	93.4	86.9	75.6	94.3	86.6	114.1	117.3	127.3	133.6	110.7	117.7	116.0
Portland cement	152.8	154.9	142.6	133.3	121.0	105.3	133.6	148.5	161.7	160.1	163.5	166.7	161.1
Asphalt products	143.5	122.0	104.6	68.0	71.6	79.8	125.3	125.1	121.3	146.8	107.0	146.8	126.2
Heating and plumbing equipment	155.8	158.8	127.6	112.5	115.9	114.9	141.2	129.5	130.3	143.8	140.6	189.6	[1]184.3
Iron and steel products	124.3	121.3	105.6	97.6	104.5	104.5	130.1	133.5	136.2	154.2	127.6	144.1	149.5
Clay construction products	126.6	123.3	123.7	120.6	112.8	108.1	132.2	126.0	135.0	145.6	134.3	148.6	150.5

	Quarterly Indexes					
	1954			1955		
	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter
Gypsum products	152.3	158.9	162.2	168.9	173.7	180.3
Plumbing fixtures	100.9	101.4	123.1	133.5	141.3	128.7

Source: Table compiled by the Department of Commerce from data reported by various Government agencies and by private firms shown in notes to the tables following. [1] Partly estimated.

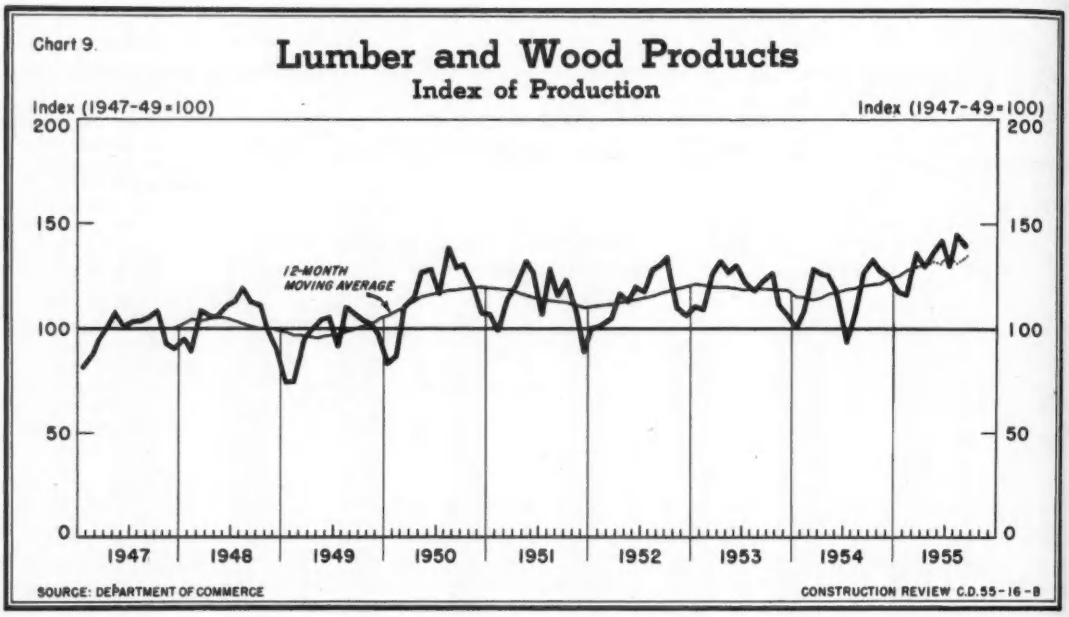


Table 27.--Lumber and Wood Products: Production, Shipments, and Stocks

Period	Softwood lumber (*Million board feet*)			Hardwood flooring (*Thousand board feet*)			Douglas fir plywood (*Million square feet*)	Insulating boards (*Tons*)	Hardboard (*Tons*)
	Production	Shipments	Stocks	Production	Shipments	Stocks	Production		
1947-49 average	28,048	27,440	4,448	812,365	789,437	44,455	1,802	766,269	294,214
Year: 1952	30,477	30,578	4,980	1,004,117	1,001,672	86,938	3,051	879,655	396,219
1953	31,072	30,318	5,756	1,004,558	1,010,972	73,449	3,704	952,562	423,428
1954	29,296	29,798	5,275	1,145,118	1,139,091	68,425	3,825	1,015,813	493,258
12 months ending:									
June 1955	30,499	31,019	--	1,240.799	1,243,223	--	4,339	1,075,468	517,530
July 1955	30,938	31,355	--	1,250,040	1,249,777	--	4,518	1,081,160	520,810
August 1955	31,659	31,906	--	1,262,397	1,259,025	--	4,726	1,093,979	525,501
September 1955	31,880	32,006	--	1,267,395	1,265,038	--	4,756	1,092,740	526,671
1954: September	2,650	2,656	5,153	104,340	104,572	56,859	332	88,860	42,409
October	2,715	2,693	5,175	104,788	105,116	56,456	393	96,961	43,268
November	2,553	2,473	5,254	102,146	98,488	59,874	395	89,164	43,744
December	2,499	2,479	5,275	102,284	92,910	68,425	393	84,239	38,535
1955: January	2,309	2,311	5,238	97,476	98,885	64,016	393	94,753	43,641
February	2,320	2,293	5,284	93,925	94,946	62,945	389	86,784	39,722
March	2,734	2,819	5,205	110,093	111,090	61,076	444	97,328	46,368
April	2,629	2,754	5,121	104,293	108,160	55,183	413	87,850	44,844
May	2,802	2,827	5,107	109,546	109,787	55,200	409	92,160	46,759
June	2,946	3,047	5,007	116,072	116,682	53,454	429	81,597	45,579
July	2,464	2,592	4,869	103,278	104,894	51,788	321	91,602	44,170
August	3,038	2,962	4,952	114,156	113,495	52,424	415	102,681	46,482
September	2,871	2,756	5,066	109,338	110,585	50,483	423	95,722	44,438
	Percent change								
September, 1954-55	+ 8	+ 4	- 2	+ 5	+ 6	-11	+27	+ 8	+ 5
First 9 mos., 1954-55	+12	+10	--	+15	+15	--	+37	+11	+ 9

Source: Table compiled by Department of Commerce (BDSA) from data reported by the National Lumber Manufacturers Association, the Douglas Fir Plywood Association, and the Bureau of the Census.

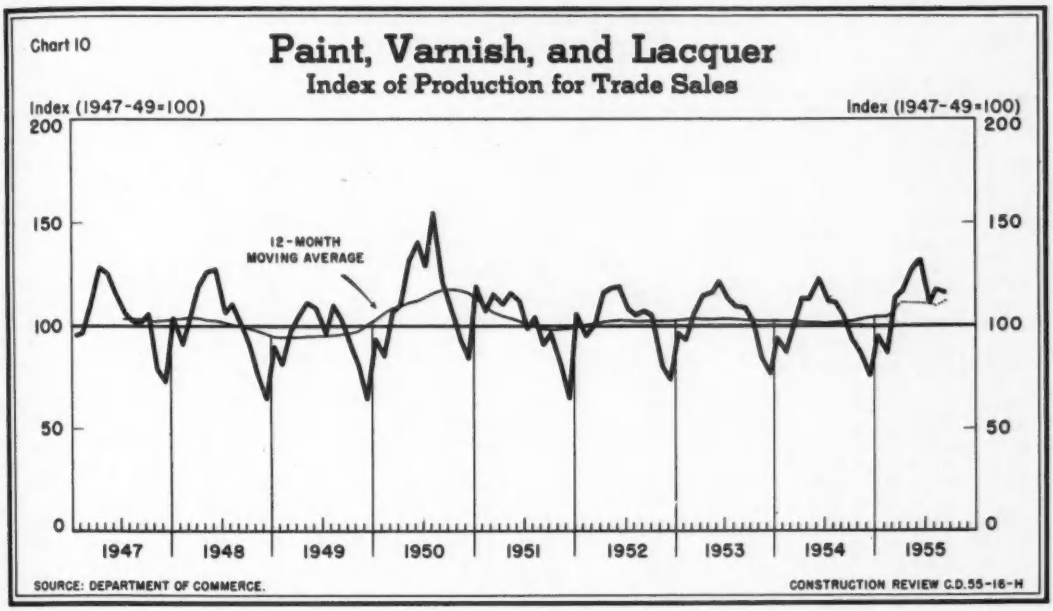


Table 28.--Millwork Products, and Paint, Varnish, and Lacquer: Production

Period	Production (*Thousands of units*)					Production for trade sales (*Thousands of gallons*)
	Douglas fir doors (panel type)	Ponderosa pine doors	Hardwood doors	Sash	Exterior frames	Paint, varnish, & lacquer
1947-49 average	5,658	3,780	3,172	11,246	4,152	266,701
Year: 1952	5,288	2,417	4,373	10,514	4,543	274,992
1953	4,070	2,487	4,783	11,419	5,072	276,326
1954	3,522	2,285	5,940	11,054	5,791	271,235
12 months ending:						
June 1955	3,507	2,379	6,915	12,761	6,927	279,451
July 1955	3,606	2,385	6,958	12,862	7,065	279,174
August 1955	3,764	2,368	6,963	13,106	7,271	280,566
September 1955	3,661	2,335	6,991	12,996	7,350	283,035
1954: September	342	235	593	1,247	634	23,309
October	346	229	591	1,227	629	20,752
November	377	191	553	1,128	518	19,320
December	383	209	560	1,124	537	16,775
1955: January	362	196	562	1,017	527	20,969
February	355	184	565	1,061	522	19,254
March	415	236	657	1,181	653	25,370
April	301	187	646	987	591	26,072
May	254	182	554	1,050	606	28,285
June	216	182	579	1,104	720	29,694
July	184	133	490	817	537	24,597
August	229	203	613	1,163	704	26,169
September	239	202	621	1,137	713	25,778
	Percent change					
September 1954-55	-30	-14	+ 5	- 9	+12	+11
First 9 mos., 1954-55	+ 6	+ 3	+25	+26	+36	+ 6

Source: Table compiled by Department of Commerce (BDSA) from data reported by the Fir Door Institute, the National Wood Work Manufacturers Association (whose data on ponderosa pine and hardwood doors, sash and exterior frames are only from member firms, and are not adjusted to represent full coverage), and the Bureau of the Census.

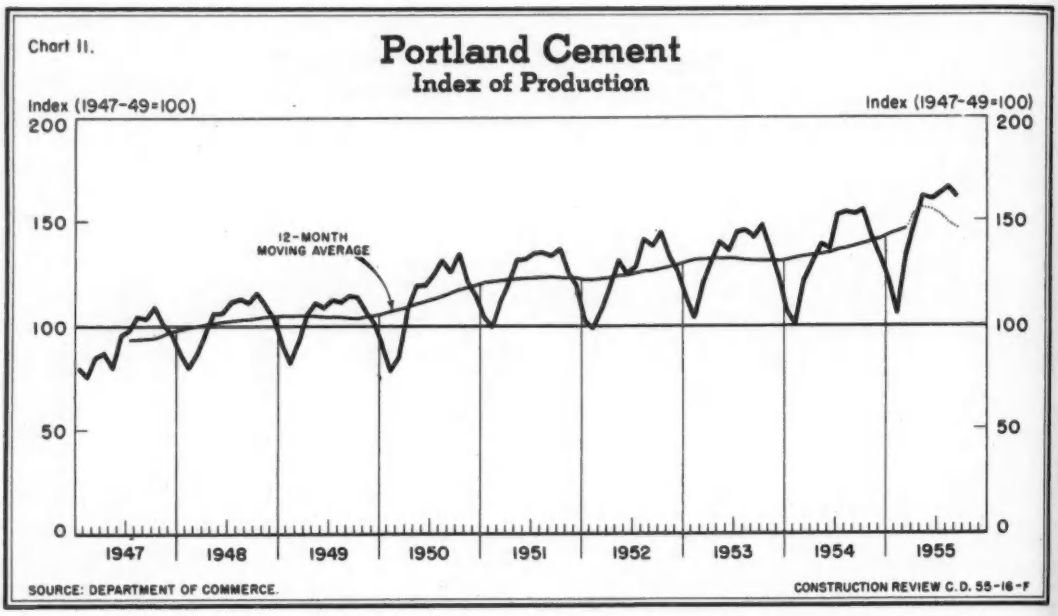


Table 29.--Portland Cement, and Asphalt and Gypsum Products: Production, Shipments, and Stocks

Period	Portland cement: Production (Thousands of barrels)	Portland cement: Shipments (Thousands of barrels)	Portland cement: Stocks (Thousands of barrels)	Shipments (Thousands of squares): Asphalt prepared roofing	Asphalt siding	Asphalt insulated brick siding	Asphalt and tar saturated felts	Shipments (Million square feet): Gypsum board[1]	Gypsum lath[1]
1947-49 average	200,607	199,306	11,922	61,252	3,365	2,811	17,087	2,478	2,075
Year: 1952	249,091	251,137	15,964	57,938	1,858	2,718	23,577	3,457	2,315
1953	264,022	260,889	19,231	56,703	1,557	2,794	25,778	3,757	2,435
1954	271,277	274,096	16,722	58,648	1,447	2,297	28,531	4,217	2,484
12 months ending:									
June 1955	287,653	288,087	--	63,640	1,357	2,226	32,224	4,475	2,690
July 1955	289,503	289,852	--	63,614	1,333	2,193	32,206		
August 1955	291,666	292,848	--	64,768	1,310	2,186	32,984	4,628	2,772
September 1955	293,082	293,683	--	63,948	1,296	2,185	32,444		
1954 September	25,522	29,032	10,907	7,062	153	256	3,036	1,079	689
October	25,887	27,134	9,667	6,088	144	221	2,436		
November	23,826	22,766	10,732	5,108	125	159	2,360	1,144	642
December	22,290	16,347	16,722	3,094	86	97	1,852		
1955: January	20,231	13,520	23,434	3,190	85	93	2,091		
February	17,612	14,031	27,018	3,264	79	108	2,711	1,181	683
March	22,409	22,941	26,486	5,533	125	161	3,758		
April	24,847	25,295	26,039	6,099	98	172	2,977		
May	27,066	29,172	23,610	5,972	91	227	2,568	1,200	724
June	26,783	31,260	18,828	6,950	109	233	3,647		
July	27,332	29,467	16,720	5,225	91	200	2,312		
August	27,861	31,883	12,705	7,183	124	253	3,238	1,232	771
September	26,938	29,867	10,909*	6,242	139	255	2,496		
	Percent change								
September 1954-55	+6	+3	(2)	-12	-9	(2)	-18	*+3	*+6
First 9 mos., 1954-55	+11	+9	--	+12	-14	-6	+18	--	--

Source: Table compiled by Department of Commerce (BDSA) from data reported by the Department of Interior (Bureau of Mines), and the Bureau of the Census. * Change from previous quarter. [1] Data reported on quarterly basis. [2] Change of less than one-half of 1 percent.

Table 30.--Portland Cement: Destination of Shipments, by State

(Thousands of barrels)

State	1955			Calendar year			12 months ending--		
	June	July	Aug.	1952	1953	1954	June 1955	July 1955	Aug. 1955
Alabama	329	323	387	3,883	4,260	3,943	3,902	3,930	3,969
Arizona	196	134	159	2,119	2,433	2,215	2,320	2,287	2,286
Arkansas	253	211	188	1,940	1,762	1,894	2,617	2,664	2,639
California	2,973	2,784	3,275	25,367	27,737	28,528	30,633	30,936	31,614
Colorado	371	340	353	2,826	2,941	3,285	3,257	3,388	3,393
Connecticut	374	319	329	2,977	3,194	3,258	3,445	3,493	3,490
Delaware	139	135	136	861	902	910	1,007	996	1,016
District of Columbia	136	119	121	1,156	1,249	1,324	1,381	1,367	1,359
Florida	723	732	774	6,680	7,487	8,354	9,099	9,193	9,258
Georgia	474	455	491	4,161	4,644	4,441	4,631	4,777	4,897
Idaho	109	97	112	1,116	986	1,215	1,157	1,093	1,061
Illinois	1,603	1,567	1,682	13,327	13,439	14,973	14,925	14,874	14,864
Indiana	894	878	1,073	6,207	6,568	6,724	7,053	7,180	7,547
Iowa	761	674	871	4,890	4,941	5,863	6,113	6,062	6,168
Kansas	825	794	795	5,939	5,801	6,576	7,146	7,373	7,482
Kentucky	347	390	500	3,621	3,354	3,026	3,008	3,100	3,300
Louisiana	686	555	630	5,869	5,728	6,292	6,618	6,692	6,734
Maine	104	101	110	692	894	857	1,042	1,034	1,021
Maryland	461	476	451	4,363	4,676	4,447	4,620	4,626	4,682
Massachusetts	580	488	452	4,347	4,351	4,180	4,863	4,893	4,917
Michigan	1,653	1,556	1,670	11,255	12,716	13,076	13,813	13,909	13,987
Minnesota	737	678	727	4,748	4,968	5,500	5,932	5,915	5,867
Mississippi	208	181	257	1,705	1,696	1,732	1,811	1,844	1,938
Missouri	865	806	862	6,319	6,796	7,556	7,518	7,589	7,658
Montana	125	101	114	1,358	949	1,019	961	944	938
Nebraska	504	407	418	2,629	3,384	3,724	3,886	3,849	3,862
Nevada	73	81	63	625	618	842	776	786	776
New Hampshire	179	154	164	451	549	827	1,055	1,103	1,172
New Jersey	1,020	924	900	8,084	8,581	9,164	9,254	9,277	9,286
New Mexico	194	168	198	1,645	1,860	2,111	2,156	2,159	2,189
New York	2,373	2,065	2,136	16,905	19,134	20,290	20,876	20,455	20,044
North Carolina	452	392	376	3,896	3,715	4,009	4,271	4,276	4,274
North Dakota	146	150	150	1,062	1,148	1,161	1,188	1,127	1,114
Ohio	2,269	2,210	2,156	13,021	14,286	16,003	17,192	17,586	17,893
Oklahoma	423	409	416	4,677	4,158	4,364	4,452	4,518	4,578
Oregon	248	255	297	2,902	2,445	2,081	2,214	2,251	2,336
Pennsylvania	1,871	1,740	1,744	15,055	15,234	15,108	15,697	15,692	15,813
Rhode Island	98	99	86	1,015	857	685	734	758	788
South Carolina	225	204	240	2,961	2,217	1,993	2,066	2,096	2,172
South Dakota	125	127	193	1,113	1,246	1,116	1,107	1,127	1,187
Tennessee	464	448	570	4,702	4,856	4,683	4,612	4,651	4,745
Texas	1,833	1,675	1,917	17,249	16,158	19,081	20,378	20,316	20,425
Utah	197	177	224	1,343	1,343	1,508	1,614	1,649	1,696
Vermont	45	33	30	321	300	242	280	279	284
Virginia	475	421	423	4,652	4,701	4,474	4,626	4,619	4,597
Washington	603	558	664	4,954	5,413	5,684	5,945	5,959	6,039
West Virginia	198	193	209	1,791	1,921	2,379	2,066	1,935	1,852
Wisconsin	732	703	778	5,673	6,127	5,840	6,041	6,109	6,111
Wyoming	65	64	63	561	538	585	563	575	580

Source: Table compiled by Department of Commerce from data reported by Department of Interior (Bureau of Mines).

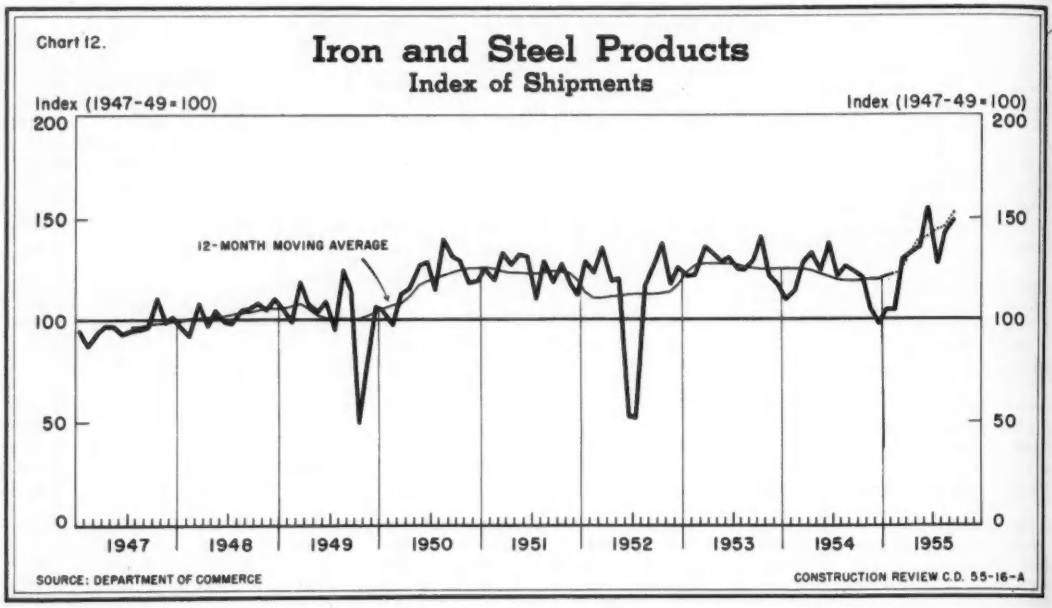


Table 31.--Iron and Steel Products: Shipments, Bookings, and Backlog

(Thousands of tons)

Period	Shipments									Shipments	Bookings	Backlog [1]
	Line pipe	Concrete reinforcing bars	Galvanized sheets	Nails	Piling	Rails	Cast-iron pipe: Pressure	Cast-iron pipe: Soil	Rigid steel conduit	Fabricated structural steel		
1947-49 average	1,975	1,523	1,669	797	309	2,167	1,075	604	226	2,248	2,105	--
Year: 1952	2,882	1,813	1,961	651	235	1,454	1,312	651	225	2,664	2,504	1,033
1953	3,507	1,849	2,291	529	343	1,954	1,286	677	221	3,117	2,787	1,010
1954	2,595	1,751	2,363	567	388	1,196	1,376	744	228	3,136	2,510	743
12 months ending:												
June 1955	2,468	1,895	2,614	639	372	1,050	1,497	831	256	2,928	2,919	--
July 1955	2,552	1,904	2,605	641	378	1,074	1,528	839	268	2,882	3,025	--
August 1955	2,635	1,949	2,640	644	370	1,091	1,557	856	266	2,878	3,144	--
September 1955	2,705	1,984	2,699	647	377	1,123	1,598	867	269	2,902	3,276	--
1954: September	225	151	210	55	26	63	124	71	22	265	207	797
October	203	150	209	49	38	59	130	68	22	258	212	763
November	132	138	197	43	31	49	118	65	23	230	195	730
December	92	123	206	32	28	40	111	55	20	224	197	743
1955: January	119	116	211	49	21	97	101	61	19	226	241	781
February	135	128	199	51	27	103	95	67	20	213	234	802
March	254	161	239	61	29	122	130	83	23	228	285	877
April	253	184	239	62	27	118	146	76	19	242	270	881
May	265	215	236	63	40	121	169	75	21	223	303	938
June	348	209	247	74	39	127	147	84	23	282	318	991
July	296	177	205	49	32	104	129	67	35	219	369	1,009
August	315	197	242	56	32	88	156	85	21	268	312	1,060
September	295	186	269	58	33	95	165	82	25	289	339	1,049
	Percent change											
September 1954-55	+31	+23	+28	+ 5	+30	+51	+33	+15	+14	+ 9	+64	+32
First 9 mos., 1954-55	+ 5	+18	+19	+18	- 4	- 7	+22	+22	+26	+18	+40	--

Source: Table compiled by the Department of Commerce (BDSA) from data reported by the American Iron and Steel Institute, the National Electric Manufacturers Association, the American Institute of Steel Construction, and the Bureau of the Census. [1] Scheduled for fabrication in the next 4 months.

Table 32.--Clay Construction Products: Production and Shipments

Period	Brick, common and face (*Million brick*)		Structural clay tile (*Thousand tons*)		Vitrified clay sewer pipe (*Thousand tons*)		Hollow facing tile (*Million brick equivalent*)		Glazed & unglazed floor & wall tile (*Thousand square feet*)	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
1947-49 average	5,504	5,324	1,286	1,231	1,451	1,375	357	341	104,800	101,088
Year: 1952	5,889	5,642	977	994	1,649	1,548	413	389	132,085	123,267
1953	5,875	5,771	990	922	1,655	1,563	456	444	137,429	134,375
1954	6,153	6,119	953	895	1,702	1,636	457	444	141,066	139,515
12 months ending:										
June 1955	6,649	6,660	892	863	1,797	1,769	449	439	161,105	162,581
July 1955	6,734	6,713	881	854	1,814	1,787	444	435	164,073	165,852
August 1955	6,828	6,806	870	854	1,838	1,818	443	435	168,967	170,453
September 1955	6,928	6,895	858	851	1,865	1,848	442	433	173,535	174,912
1954: September	576	589	81	77	156	158	38	38	12,399	12,756
October	561	571	81	79	148	153	37	38	12,308	12,272
November	557	549	80	72	149	140	40	38	12,477	12,222
December	519	464	69	64	151	122	42	39	12,880	12,358
1955: January	468	412	66	64	132	101	36	33	13,973	13,258
February	446	405	65	60	134	109	33	33	13,111	12,528
March	563	568	72	69	163	149	40	39	15,338	15,807
April	569	605	65	70	143	147	32	31	14,550	14,820
May	614	652	68	72	157	178	34	34	15,077	15,491
June	654	684	77	77	179	197	37	38	15,936	16,936
July	623	627	73	70	152	171	35	34	14,414	15,036
August	677	680	73	81	173	193	39	40	16,504	16,969
September	676	678	69	74	183	188	37	36	16,967	17,215
	Percent change									
September 1954-55	+17	+15	-15	-4	+17	+19	-3	-5	+37	+35
First 9 mos., 1954-55	+17	+17	-14	-6	+13	+17	-5	-3	+31	+34

Source: Table compiled by Department of Commerce (BDSA) from data reported by the Bureau of the Census.

Table 33.--Clay Construction Products: Production and Shipments, by Census Region [1]

Census region	PRODUCTION				SHIPMENTS			
	September 1955		First 9 months 1955		September 1955		First 9 months 1955	
	Quantity	Percent change from Sept. 1954	Quantity	Percent change, 1954-55	Quantity	Percent change from Sept. 1954	Quantity	Percent change, 1954-55
	Brick, common and face (*thousands*)							
U. S. TOTAL	675,876	+17	5,290,429	+19	677,850	+15	5,313,217	+17
New England	11,658	+ 1	94,011	+ 3	12,698	+ 9	88,751	+ 2
Middle Atlantic	103,711	+ 9	817,292	+ 2	113,027	+13	854,662	+ 9
East North Central	156,590	+10	1,209,919	+13	158,163	+ 2	1,200,979	+10
West North Central	35,628	+27	278,390	+32	34,572	+19	267,029	+26
South Atlantic	157,366	+19	1,294,867	+20	167,812	+27	1,341,070	+25
East South Central	61,670	+22	494,671	+21	62,740	+19	500,821	+21
West South Central	79,154	+30	634,951	+28	73,019	+22	601,200	+22
Mountain	25,974	+34	185,918	+26	21,216	+10	175,313	+16
Pacific	44,125	+24	280,600	+30	34,603	+19	283,392	+25
	Structural clay tile (*tons*)							
U. S. TOTAL	69,241	-15	629,092	-13	74,339	- 4	636,977	- 6
Middle Atlantic	6,573	- 1	61,706	- 1	7,661	+17	65,483	+ 8
East North Central	11,118	-27	102,440	+ 4	12,202	+ 8	108,881	+13
West North Central	8,128	-45	84,426	-35	11,606	-22	86,681	-26
South Atlantic	12,546	- 1	113,740	-17	14,162	+ 3	125,246	(2)
East South Central	4,795	-49	51,615	-30	4,668	-44	53,602	+16
West South Central	24,236	+18	198,662	+ 1	21,885	+12	180,520	- 6
Mountain & Pacific	1,845	- 8	16,482	-38	2,155	-24	16,372	-31
	Vitrified clay sewer pipe (*tons*)							
U. S. TOTAL	182,797	+17	1,416,034	+13	187,947	+19	1,431,868	+17
Middle Atlantic	22,553	+18	154,919	+ 5	21,466	+42	146,457	+14
East North Central	74,838	+19	575,052	+17	78,825	+18	590,921	+20
West North Central	17,379	+ 5	148,525	+ 5	17,513	- 4	150,000	+ 3
South Atlantic	13,807	+39	113,992	+31	14,280	+39	115,854	+33
E. & W. South Central	23,888	+22	187,067	+ 7	23,985	+16	185,526	+13
Mountain	4,466	+ 3	33,073	- 2	4,309	+ 4	31,821	- 1
Pacific	25,866	+10	203,406	+15	27,569	+24	211,290	+23

Source: Table compiled by Department of Commerce (BDSA) from data reported by the Bureau of the Census. [1] Composition of regions, and nonfarm population distribution by region, are shown below table 2. [2] Change of less than one-half of 1 percent.

Table 34.--Heating and Plumbing Equipment: Shipments and Stocks

Period	Gas water heaters (Thousands of units)		C. I. convectors and radiators (Thousand square feet)		Warm air furnaces (Thousands of units)		Floor and wall furnaces (Thousands of units)		Residential oil burners[1] (Thousands of units)
	Shipments	Stocks	Shipments	Stocks	Shipments	Stocks	Shipments	Stocks	Shipments
1947-49 average	1,818	67	50,980	4,377	794	69	552	44	541
Year: 1952	1,996	74	36,898	3,859	928	106	548	59	505
1953	2,274	128	31,667	4,650	997	148	552	108	541
1954	2,236	103	28,386	5,434	1,132	130	550	74	494
12 months ending:									
June 1955	2,456	--	28,518	--	1,261	--	585	--	534
July 1955	2,476	--	28,446	--	1,277	--	582	--	538
August 1955	2,533	--	28,746	--	1,311	--	581	--	529
September 1955	2,556	--	--	--	1,327	--	578	--	531
1954: September	201	87	3,217	6,478	148	133	68	75	62
October	198	91	3,354	5,915	138	122	76	63	69
November	176	95	2,700	5,400	108	121	60	59	42
December	163	103	1,956	5,434	81	130	45	74	29
1955: January	200	97	1,675	5,876	85	137	39	76	39
February	215	94	1,970	6,106	80	145	38	81	39
March	249	103	2,419	6,416	87	176	41	81	39
April	232	94	2,035	6,991	92	189	40	82	39
May	217	123	1,732	7,898	100	200	39	83	40
June	215	111	2,208	7,903	117	213	39	85	41
July	207	91	1,865	(2)	108	194	38	87	44
August	260	69	3,615	6,378	164	187	57	85	47
September	224	93	(2)	(2)	164	187	65	71	64
	Percent change								
September 1954-55	+11	+7	+9	-6	+11	+41	-4	-6	+ 3
First 9 mos., 1954-55	+19	--	(3)	--	+24	--	+8	--	+15

Source: Table compiled by Department of Commerce (BDSA) from data reported by the Bureau of the Census. [1] Sold separately. [2] Not yet available. [3] Change of less than one-half of 1 percent.

Chart 13.

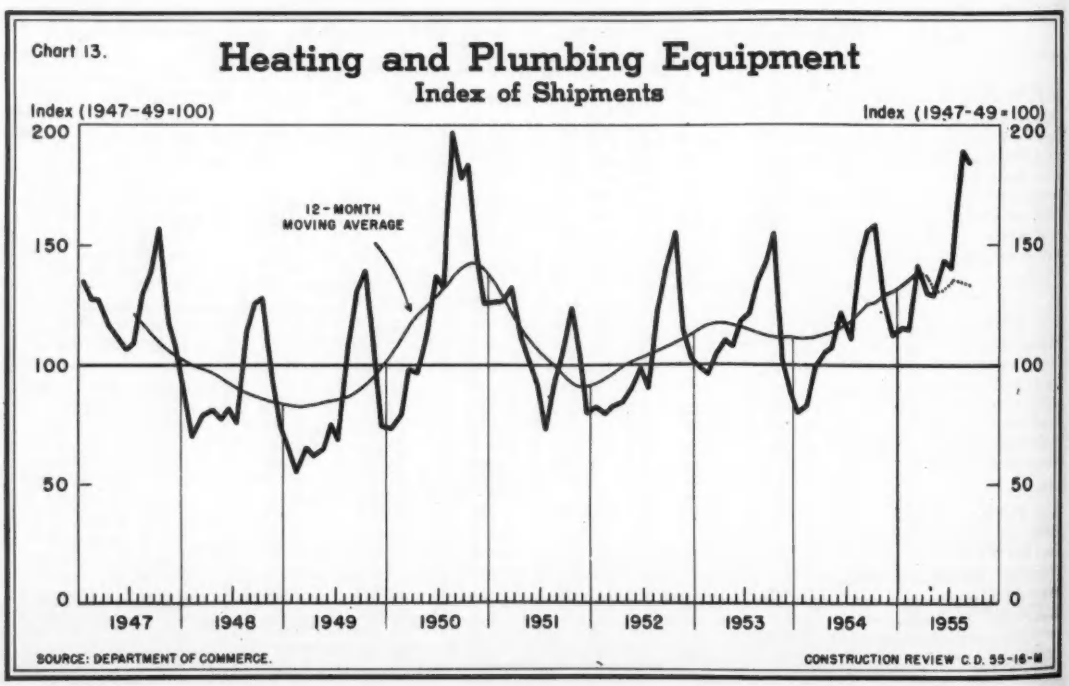
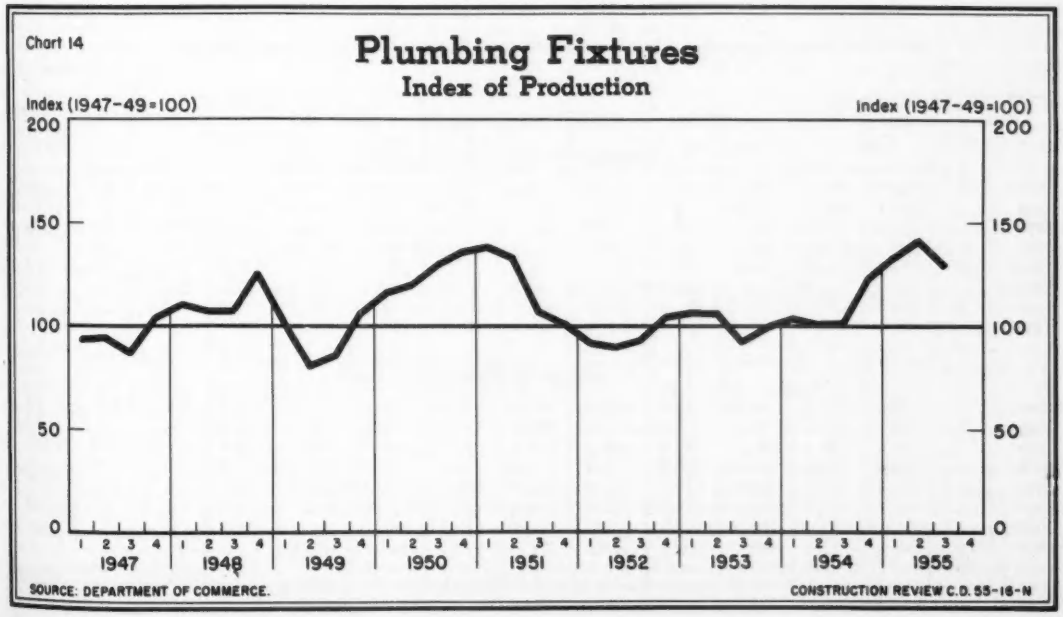


Table 35.--Plumbing Fixtures: Production, Shipments, and Stocks

Type of fixture	Number of fixtures						Percent change, 3d quarter 1954-55		
	3d quarter 1955			3d quarter 1954					
	Production	Shipments	Stocks [1]	Production	Shipments	Stocks [1]	Production	Shipments	Stocks [1]
Lavatories	1,004,385	1,041,868	300,694	762,183	856,750	323,617	+32	+22	- 7
Vitreous china	545,952	549,216	143,832	395,891	413,060	149,336	+38	+33	- 3
Cast-iron	389,758	412,489	122,686	294,725	375,017	139,743	+32	+10	-12
Steel	68,675	80,163	34,176	70,745	68,673	34,538	- 3	+16	- 3
Water closets	1,166,304	1,164,711	158,086	813,585	874,593	152,870	+43	+33	+ 3
Syphon jet	131,854	132,999	40,602	93,930	114,629	43,582	+40	+16	- 7
Washdown	508,768	506,540	61,587	375,595	384,087	59,185	+35	+32	+ 4
Reverse trap	525,682	525,172	55,897	344,060	375,877	50,103	+53	+40	+12
Flush tanks, vitreous china	1,009,983	1,001,605	201,251	714,157	760,579	158,207	+41	+32	+27
Urinals, vitreous china	40,351	39,514	13,835	30,482	34,605	11,918	+32	+14	+16
Kitchen sinks	581,371	634,146	321,810	490,229	572,948	209,324	+19	+11	+54
Cast-iron	245,621	267,619	122,000	203,310	268,238	119,385	+21	(2)	+ 2
Steel	335,243	365,841	199,014	285,916	303,682	88,834	+17	+20	+124
Other metals and glazed earthenware [3]	507	686	796	1,003	1,028	1,105	-49	-33	-28
Wash sinks	4,359	5,314	4,478	3,801	4,878	3,417	+15	+ 9	+31
Service sinks	29,902	27,042	15,055	18,614	22,484	12,898	+61	+20	+17
Sink and laundry tray comb.	36,069	37,133	21,337	32,325	41,712	15,221	+12	-11	+40
Laundry trays	33,495	40,012	9,635	20,342	28,476	15,463	+65	+41	-38
Bathtubs	535,877	615,966	122,461	463,989	567,631	96,711	+16	+ 8	+26
Cast-iron	379,173	449,349	83,506	304,096	409,446	63,840	+25	+10	+31
Steel	156,704	166,617	38,955	159,893	158,185	32,871	- 2	+ 5	+19
Shower stalls, including receptors	58,621	57,582	8,526	55,156	53,248	10,421	+ 6	+ 8	-18

Source: Department of Commerce. [1] At end of period. [2] Change of less than one-half of 1 percent. [3] Includes vitreous china.



Part VII--Employment

Table 36.--Contract Construction: Employment by Type of Contractor

Period	All contractors	Building contractors						Nonbuilding contractors		
		All building contractors	General contractors	Special trades contractors				All nonbuilding	Highway and street	Other nonbuilding
				All special trades	Plumbing and heating	Painting and decorating	Electrical work	Other trades			
	NUMBER OF EMPLOYEES *(in thousands)*									
Year: 1948	2,169.0	1,753.0	807.0	946.0	238.2	124.9	123.2	459.8	416.0	172.1	243.8
1949	2,165.0	1,736.0	779.0	957.0	241.7	123.4	122.1	469.5	428.0	178.1	250.3
1950	2,333.0	1,885.0	844.0	1,041.0	263.1	130.8	123.4	524.0	448.0	183.0	265.2
1951	2,603.0	2,109.0	957.6	1,151.7	286.9	155.7	140.5	568.7	493.0	201.3	291.9
1952	2,634.0	2,119.0	948.3	1,170.8	287.7	156.5	155.7	570.9	514.0	209.4	305.0
1953	2,622.0	2,109.0	934.0	1,175.1	288.9	148.1	159.7	578.4	513.0	214.9	297.8
1954	2,527.0	2,021.0	848.8	1,172.7	283.4	141.4	156.5	591.5	506.0	217.4	288.2
1954: Sept.	2,698.0	2,129.0	897.6	1,231.1	291.4	157.0	155.0	627.7	569.0	262.1	306.9
Oct.	2,652.0	2,099.0	877.2	1,221.9	291.1	148.4	155.5	626.9	553.0	252.6	300.7
Nov.	2,598.0	2,074.0	862.6	1,211.7	288.1	144.2	155.4	624.0	524.0	231.2	292.6
Dec.	2,426.0	1,975.0	801.9	1,173.4	283.1	135.5	153.7	601.1	451.0	186.0	265.2
1955: Jan.	2,237.0	1,839.0	733.3	1,106.1	270.6	121.6	148.5	565.4	398.0	152.6	244.9
Feb.	2,169.0	1,780.0	694.6	1,085.6	264.7	121.7	144.6	554.6	389.0	147.4	241.2
Mar.	2,255.0	1,844.0	723.9	1,119.9	266.3	129.2	143.6	580.8	411.0	161.9	249.0
Apr.	2,399.0	1,935.0	759.8	1,174.8	272.5	140.2	143.8	618.3	464.0	196.4	267.3
May	2,526.0	2,013.0	789.9	1,222.8	279.3	147.8	145.6	650.1	513.0	234.7	278.6
June	2,615.0	2,067.0	819.7	1,247.2	284.0	153.5	148.5	661.2	548.0	262.3	286.1
July	2,701.0	2,134.0	855.5	1,278.8	289.9	161.5	150.1	677.3	567.0	272.3	295.1
Aug.	2,746.0	2,170.0	868.2	1,301.6	297.3	164.1	150.4	689.8	576.0	277.9	298.2
Sept.	2,745.0	2,163.0	851.0	1,312.0	299.4	161.3	152.2	699.1	582.0	279.5	302.4
	Percent change										
Aug.-Sept. 1955	(1)	-0.3	-2.0	+0.8	+0.7	-1.7	+1.2	+1.3	+1.0	+0.6	+1.4
Sept., 1954-55	+1.7	+1.6	-5.2	+6.6	+2.7	+2.7	-1.8	+11.4	+2.3	+6.6	-1.5

Source: Department of Labor. [1] Change of less than one-half of 1 percent.

Table 37.--Contract Construction: Indexes of Employment (Seasonally Adjusted), and Indexes of Weekly Man-Hours

(1947-49 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
	INDEXES OF EMPLOYMENT *(seasonally adjusted)* [1]												
1948	100.8	95.8	98.2	100.1	101.6	103.9	104.6	105.2	105.6	106.0	106.9	107.0	103.1
1949	105.7	103.2	102.0	101.2	101.0	101.3	102.6	103.5	104.5	104.2	104.1	101.8	102.9
1950	100.8	99.9	100.1	103.3	106.3	111.1	114.4	116.5	117.6	119.0	119.7	117.5	110.9
1951	120.1	119.9	122.2	123.3	123.4	124.3	125.2	125.6	125.1	126.2	123.9	124.6	123.8
1952	123.6	124.8	123.1	123.0	123.5	125.8	126.4	127.1	127.5	125.9	126.0	125.2	125.2
1953	124.4	124.7	124.7	124.0	123.5	123.4	124.1	124.5	125.8	126.2	125.2	124.1	124.6
1954	119.0	120.7	122.1	121.3	120.8	120.1	120.4	120.3	119.8	118.9	119.8	117.6	120.0
1955	116.8	114.5	117.7	118.7	120.0	119.4	121.0	120.8	121.9				
	INDEXES OF WEEKLY MAN-HOURS												
1948	89.6	81.3	86.7	95.0	102.2	111.9	115.1	117.3	116.2	113.3	106.6	105.4	103.4
1949	94.2	88.9	89.2	95.0	103.1	106.8	110.5	114.2	111.5	111.4	104.4	94.9	102.0
1950	84.6	79.5	83.7	95.8	106.1	116.7	122.1	129.5	126.1	128.9	123.9	112.7	109.1
1951	106.4	99.3	105.4	116.9	126.4	131.8	137.7	141.1	138.5	139.8	124.2	121.6	124.1
1952	111.1	112.3	108.3	117.5	125.4	136.8	138.9	143.2	144.0	139.9	128.2	123.9	127.5
1953	109.1	108.7	109.1	115.8	122.6	130.4	132.0	137.2	131.7	136.7	126.7	117.2	123.1
1954	95.5	102.8	106.4	112.1	118.2	124.6	127.5	129.8	123.8	123.5	118.2	108.9	115.9
1955	96.0	92.4	100.6	106.1	117.2	122.3	128.7	129.3	132.4				

Source: Department of Labor. [1] Indexes for months before January 1953 are based on seasonally adjusted employment data derived by the Federal Reserve Board.

Table 38.--Contract Construction: Employment, by State

State	Number of employees (in thousands)											Percent change, Sept. 1954-55
	1955								1952	1953	1954	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Sept.	Sept.	Sept.	
Alabama	29.9	31.1	31.7	32.9	33.2	33.9	34.0	32.9	39.8	35.4	35.3	- 7
Arizona[1]	18.0	18.7	18.9	19.2	19.0	19.1	17.9	19.3	16.4	17.4	17.7	+ 9
Arkansas	14.4	15.5	15.8	15.7	16.2	17.0	17.3	16.7	26.3	20.1	16.5	+ 1
California	249.6	255.4	262.5	268.3	277.7	283.0	291.4	289.7	270.3	268.2	262.5	+10
Colorado	21.1	22.1	24.1	25.6	27.6	26.8	26.5	26.2	31.4	28.0	25.9	+ 1
Connecticut[2]	36.3	37.6	41.4	45.5	48.0	49.5	49.3	49.8	44.7	43.2	42.3	+18
Delaware[3]	--	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	16.6	17.1	18.2	18.7	18.3	18.1	18.8	19.3	18.8	19.6	19.4	- 1
Florida	77.8	78.4	79.2	79.7	81.2	84.4	87.7	85.6	78.1	84.5	82.0	+ 4
Georgia	50.1	52.3	52.6	54.5	56.9	57.1	58.0	55.6	48.2	53.9	51.2	+ 9
Idaho	5.5	6.3	7.4	8.5	10.0	10.1	10.5	10.1	11.2	10.1	10.5	- 4
Illinois	139.6	145.5	154.7	167.7	171.8	175.2	176.9	174.6	177.7	174.1	179.4	- 3
Indiana	54.0	57.9	63.2	66.9	72.6	77.1	80.3	79.7	70.9	67.4	63.1	+26
Iowa	23.8	25.9	29.6	33.3	37.5	38.5	38.8	38.3	35.9	40.1	36.2	+ 6
Kansas	28.2	32.7	35.5	36.0	38.2	40.0	41.4	39.9	39.0	40.0	40.8	- 2
Kentucky[3]	--	--	--	--	--	--	--	--	--	--	--	--
Louisiana	44.3	45.3	45.5	45.8	47.2	47.4	47.8	47.3	59.4	61.3	53.2	-11
Maine	9.9	9.7	11.4	14.6	15.3	15.8	15.6	14.6	14.1	14.0	14.3	+ 2
Maryland	51.6	55.9	59.5	62.4	63.4	66.0	66.8	69.5	65.2	63.0	63.3	+10
Massachusetts	61.9	66.4	73.9	79.4	83.6	86.7	87.1	91.4	79.0	78.2	77.8	+17
Michigan	96.6	95.1	100.1	106.2	108.1	106.7	112.4	116.3	117.8	121.8	124.5	- 7
Minnesota	42.7	42.9	49.2	58.6	65.3	67.9	71.6	70.7	58.4	56.8	60.7	+16
Mississippi	15.9	16.8	17.2	19.1	19.0	18.9	19.2	18.9	21.6	22.1	17.3	+ 9
Missouri	60.6	65.7	67.6	68.3	71.2	76.3	75.3	72.8	66.3	67.8	72.6	(4)
Montana	6.5	6.5	7.5	10.1	10.7	11.7	12.4	12.4	12.7	11.4	12.6	- 2
Nebraska[1]	16.1	17.9	21.2	24.7	26.0	28.1	28.5	28.5	21.8	23.1	25.3	+13
Nevada	8.7	9.7	9.1	9.6	9.7	10.4	10.6	10.3	7.6	8.2	9.7	+ 6
New Hampshire	7.4	7.7	8.9	9.7	10.4	10.7	10.4	10.1	7.8	8.0	10.5	- 4
New Jersey[1]	83.6	77.5	83.9	91.3	99.0	101.4	106.7	107.1	100.4	99.5	98.4	+ 9
New Mexico	13.2	13.9	14.7	15.5	16.1	16.0	16.0	15.8	14.9	15.4	14.9	+ 6
New York	194.6	203.1	217.7	232.9	240.0	248.0	249.9	252.7	233.8	237.1	250.3	+ 1
North Carolina	42.5	44.4	44.8	47.3	48.7	48.1	47.8	47.2	56.4	54.5	48.6	- 3
North Dakota	5.9	6.0	8.2	10.3	12.2	12.2	12.7	12.5	11.6	11.8	13.1	- 5
Ohio	122.1	127.4	136.9	145.3	154.3	163.5	167.8	165.9	155.2	166.6	164.8	+ 1
Oklahoma	28.2	29.5	31.2	30.9	32.4	33.5	32.8	32.3	35.2	32.4	32.4	(4)
Oregon[1]	18.5	19.4	20.5	23.8	23.8	27.5	29.8	28.4	29.2	29.2	26.1	+ 9
Pennsylvania	147.1	158.8	175.1	189.1	196.5	203.4	202.3	210.3	200.2	203.3	190.8	+10
Rhode Island	14.6	15.7	17.0	17.2	17.5	17.9	18.3	19.0	18.0	16.0	17.2	+10
South Carolina	34.2	34.2	35.6	36.4	37.9	38.7	39.4	37.9	64.1	48.8	39.1	- 3
South Dakota	6.1	6.7	8.2	9.7	10.2	10.3	9.9	9.1	10.4	11.6	11.8	-23
Tennessee	51.0	52.2	53.1	54.5	55.4	55.4	55.2	54.6	51.8	58.3	61.1	-11
Texas	155.6	162.4	162.7	164.2	169.1	170.4	170.7	163.7	173.7	155.8	154.6	+ 6
Utah	9.6	11.0	12.8	14.3	15.8	16.5	17.0	16.8	14.3	13.1	14.0	+20
Vermont	2.9	3.0	3.6	4.5	5.0	5.4	5.4	5.3	4.2	4.9	4.9	+ 8
Virginia	55.0	57.1	59.3	60.1	61.2	62.4	62.8	63.1	65.8	63.8	60.9	+ 4
Washington	39.3	41.1	44.7	47.3	49.5	51.6	52.3	51.0	49.8	52.2	51.9	- 2
West Virginia	13.7	15.2	16.2	17.2	19.5	21.2	23.6	22.8	21.3	25.1	19.2	+19
Wisconsin	45.9	47.3	50.8	56.2	60.4	63.5	65.7	66.4	59.2	57.5	56.8	+17
Wyoming	4.0	4.2	4.4	5.8	6.5	7.2	7.3	7.5	8.0	7.4	7.8	- 4

Source: Department of Labor. [1] Revised series; not strictly comparable with previously published data. [2] Includes a small number of employees in mining. [3] Not available. [4] Change of less than one-half of 1 percent.

Table 39.--Contract Construction: Employment in Selected Areas

Area	Number of employees *(in thousands)*											Percent change, Sept. 1954-55
	1955								1952	1953	1954	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Sept.	Sept.	Sept.	
Albany-Schenectady-Troy, N.Y.	4.9	4.8	5.4	6.3	6.8	6.6	7.0	6.9	7.6	7.9	8.3	-17
Albuquerque, N. Mex.	4.6	4.7	4.9	5.6	6.0	6.3	6.1	6.2	4.8	4.6	4.9	+27
Atlanta, Ga.	17.5	18.0	18.3	19.4	20.5	20.6	21.7	21.1	14.3	16.6	17.3	+22
Baltimore, Md.	31.9	34.4	36.3	38.0	38.1	39.7	40.7	42.8	38.2	40.0	40.0	+ 7
Baton Rouge, La.	5.4	5.4	5.4	5.6	5.8	5.7	5.8	5.8	(1)	(1)	6.7	-13
Binghamton, N.Y.	2.4	2.5	2.8	3.1	3.2	3.1	3.1	3.1	3.2	3.6	3.3	- 6
Birmingham, Ala.	11.1	11.3	11.8	12.7	13.6	14.0	14.2	14.0	11.0	11.9	11.8	+19
Boise, Idaho	1.1	1.3	1.4	1.4	1.5	1.6	1.7	1.6	2.1	2.3	1.8	-11
Boston, Mass.	33.4	36.7	41.5	44.9	47.6	51.2	50.9	53.5	46.6	46.5	41.1	+30
Bridgeport, Conn.[2]	4.3	4.5	5.0	5.2	5.6	6.1	6.2	6.1	5.4	5.5	5.5	+11
Buffalo, N.Y.	13.7	13.6	15.7	17.5	18.5	19.8	19.4	20.3	19.9	21.6	21.2	- 4
Casper, Wyo.[3]	.9	.8	.9	1.1	1.1	1.2	1.1	1.1	1.4	1.1	1.5	-27
Charleston, S.C.	3.8	4.1	4.0	4.0	4.0	3.9	4.1	4.0	4.9	4.4	3.7	+ 8
Charleston, W. Va.	3.5	3.6	3.9	4.1	4.4	4.5	4.7	4.7	6.4	5.9	4.4	+ 7
Charlotte, N.C.	4.8	5.1	5.3	5.5	5.6	5.2	5.2	5.1	6.7	6.2	6.3	-19
Chattanooga, Tenn.	4.6	4.6	4.3	4.4	4.7	4.8	4.5	4.6	4.0	5.1	4.6	0
Chicago, Ill.	94.8	99.6	104.8	110.9	113.1	115.5	117.3	117.0	109.7	113.1	113.6	+ 3
Denver, Colo.	13.0	13.4	14.4	15.4	16.1	15.8	15.8	15.8	19.4	17.4	16.6	- 5
Des Moines, Iowa	4.3	5.1	5.5	6.0	6.6	6.5	6.7	6.6	4.0	5.2	6.6	0
Detroit, Mich.	59.4	56.9	60.0	62.4	63.1	61.0	65.8	67.8	(1)	68.7	74.2	- 9
Duluth, Minn.	2.1	2.0	2.2	2.5	2.7	2.8	3.0	3.0	3.2	2.7	2.6	+15
Fargo, N.D.	1.2	1.1	1.4	1.7	2.1	2.2	2.5	2.3	(1)	2.3	2.2	+ 5
Fort Wayne, Ind.	2.6	2.6	2.9	2.6	3.0	3.1	3.3	(1)	3.9	3.8	3.6	--
Great Falls, Mont.	1.1	1.2	1.3	1.5	1.7	1.9	1.9	1.8	(1)	1.5	1.7	+ 6
Harrisburg, Pa.	6.0	6.9	7.7	7.8	8.4	8.4	7.9	8.4	8.4	7.9	8.8	- 5
Hartford, Conn.[2]	7.9	8.1	8.9	9.3	9.7	9.9	10.0	9.8	9.6	9.5	9.5	+ 3
Indianapolis, Ind.	8.0	8.6	8.8	9.5	10.3	10.4	11.1	(1)	13.3	12.3	9.8	--
Jacksonville, Fla.	9.3	9.0	8.8	8.7	8.1	8.7	8.7	8.7	9.1	8.3	9.4	- 7
Kansas City, Mo.	18.4	19.0	19.4	18.7	19.4	19.1	18.9	19.1	22.4	21.6	18.0	+ 6
Knoxville, Tenn.	11.5	11.0	10.4	10.4	10.0	8.8	8.8	8.2	7.8	13.3	16.3	-50
Lewiston, Maine	.9	.9	1.0	1.1	1.2	1.3	1.3	1.3	1.2	1.2	1.3	0
Little Rock-N. Little Rock, Ark.	5.0	5.2	5.6	6.3	5.9	6.6	6.6	6.6	5.3	5.6	5.4	+22
Los Angeles, Calif.	120.4	123.3	125.4	126.2	128.6	130.4	133.4	133.4	115.7	126.6	120.4	+11
Louisville, Ky.	12.6	12.8	12.9	13.8	14.2	15.0	16.2	15.2	(1)	(1)	16.8	-10
Manchester, N.H.	1.7	1.8	2.0	2.1	2.2	2.2	2.2	2.2	1.4	1.6	2.1	+ 5
Memphis, Tenn.	9.0	9.9	10.1	10.7	11.9	11.9	12.2	12.5	11.4	10.7	9.9	+26
Miami, Fla.	22.9	23.6	23.6	22.9	23.9	25.0	25.9	26.7	17.6	21.4	21.5	+24
Milwaukee, Wis.	17.4	18.2	19.6	20.9	21.8	22.8	23.7	24.0	(1)	(1)	20.0	+20
Minneapolis-St. Paul, Minn.	24.3	25.2	30.1	35.2	37.9	38.9	40.4	40.6	33.0	31.9	34.5	+18
Mobile, Ala.	3.9	4.6	4.4	4.4	4.1	4.0	3.9	3.9	(1)	5.0	3.0	+30
Nashville, Tenn.[2]	6.3	6.6	6.9	7.5	7.9	8.2	8.4	8.5	(1)	9.2	8.3	+ 2
Nassau-Suffolk Counties, N.Y.	23.2	26.1	28.2	29.4	30.2	30.1	30.2	30.5	(1)	28.0	28.3	+ 8
Newark-Jersey City, N.J.	24.4	26.4	28.7	32.2	33.2	33.7	33.4	33.4	(1)	31.0	29.5	+13
New Bedford, Mass.	1.0	1.1	1.3	1.4	1.4	1.4	1.5	1.4	1.5	1.4	1.3	+ 8
New Britain, Conn.[2]	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.3	1.2	1.3	1.4	- 7
New Haven, Conn.[2]	4.9	5.0	5.4	5.7	6.0	6.3	6.6	6.5	6.7	5.9	6.2	+ 5
New Orleans, La.	19.5	20.1	20.1	20.3	20.8	21.0	21.0	21.0	21.8	21.4	21.7	- 3
New York City, N.Y.	95.7	99.3	101.9	107.0	109.4	110.7	111.5	114.0	104.6	102.3	108.2	+ 5
Norfolk-Portsmouth, Va.	10.9	11.2	11.5	11.4	12.0	12.2	12.5	12.4	12.7	13.9	11.9	+ 4
Oklahoma City, Okla.	7.6	8.0	8.6	8.8	9.3	9.3	9.2	9.0	10.4	9.4	8.9	+ 1
Omaha, Nebr.	6.7	6.9	7.3	8.3	7.3	8.7	8.9	9.0	8.2	9.3	9.3	- 3
Phoenix, Ariz.[3]	10.0	10.2	10.4	10.4	10.0	10.2	9.2	10.2	7.7	8.4	8.8	+16
Pittsburgh, Pa.	33.5	35.9	40.8	42.4	43.8	45.6	45.9	48.3	(1)	44.7	37.3	+29
Portland, Maine	2.9	3.0	3.1	3.3	3.2	4.0	3.8	3.6	3.0	3.7	3.9	- 8
Portland, Oreg.	11.2	11.7	12.2	14.0	13.1	15.3	16.1	16.3	14.9	16.1	14.6	+12
Providence, R.I.	13.0	13.9	15.0	15.3	15.5	15.7	16.2	16.8	16.0	14.2	15.2	+11
Racine, Wis.	1.7	1.7	1.8	1.9	2.1	2.0	2.2	2.1	(1)	(1)	2.2	- 5
Reno, Nev.	1.9	2.0	2.1	2.3	2.2	2.4	2.5	2.4	1.7	1.8	2.4	0
Richmond, Va.	8.9	9.1	9.8	9.9	10.1	10.4	10.5	10.5	12.3	11.4	9.9	+ 6

See footnotes at end of table.

Table 39.--Contract Construction: Employment in Selected Areas--Continued

Area	Number of employees *(in thousands)*											Percent change, Sept. 1954-55
	1955								1952	1953	1954	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Sept.	Sept.	Sept.	
Rochester, N.Y.	7.9	8.0	8.8	8.9	8.2	10.7	10.9	10.5	8.3	9.2	10.5	0
St. Louis, Mo.	34.2	36.9	37.4	37.1	37.5	38.6	39.5	39.1	(1)	(1)	44.5	-12
Salt Lake City, Utah	6.4	7.2	7.6	7.7	8.3	8.6	10.2	10.7	7.9	7.3	8.3	+29
San Diego, Calif.	12.4	12.6	12.8	12.9	12.3	13.3	13.1	12.9	15.3	13.6	12.3	+ 5
San Francisco-Oakland, Calif.	53.4	53.4	55.8	57.8	61.2	63.1	64.6	64.4	65.6	59.7	58.9	+ 9
Savannah, Ga.	3.2	3.3	3.5	3.5	3.5	3.1	3.1	2.8	4.1	4.7	2.6	+ 8
Seattle, Wash.	12.5	13.6	14.4	15.0	15.1	15.3	15.6	15.6	13.6	13.6	14.5	+ 8
Spokane, Wash.	3.3	3.1	3.9	3.9	4.5	4.9	5.2	5.2	4.7	4.6	4.6	+13
Springfield-Holyoke, Mass.	4.1	4.3	4.8	4.9	5.4	5.9	6.3	6.5	5.5	4.5	5.5	+18
Stamford, Conn.[2]	2.8	3.0	3.3	3.4	3.5	3.6	3.6	3.5	3.4	3.3	3.4	+ 3
Syracuse, N.Y.	4.8	5.4	6.0	6.7	7.7	6.9	7.2	7.3	7.9	7.9	7.8	- 6
Tacoma, Wash.	3.4	3.6	3.8	4.2	4.8	5.0	5.1	5.4	4.6	4.8	4.2	+29
Tampa-St. Petersburg, Fla.[3]	12.8	12.7	12.8	12.9	13.0	13.3	13.4	13.3	13.5	12.3	13.8	- 4
Topeka, Kans.	2.4	2.7	3.1	3.2	3.6	3.9	4.0	3.8	4.1	2.9	3.1	+23
Tucson, Ariz.[3]	3.6	3.8	4.1	4.3	4.4	4.3	4.2	4.2	5.1	3.8	3.8	+11
Tulsa, Okla.	7.3	7.7	8.2	7.8	7.8	7.6	7.5	7.4	8.0	7.4	7.6	- 3
Utica-Rome, N.Y.	1.6	1.6	1.7	1.9	2.1	2.2	2.2	2.4	3.4	3.7	3.6	-33
Washington, D.C.	35.9	37.0	39.0	39.8	39.8	40.0	41.4	42.1	40.8	40.7	40.5	+ 4
Waterbury, Conn.[2]	1.6	1.6	1.8	1.9	2.0	2.1	2.2	3.1	2.2	2.0	2.1	+48
Westchester Co., N.Y.	12.4	13.4	15.0	15.7	16.5	16.9	16.4	16.5	(1)	(1)	16.4	+ 1
Wheeling-Steubenville, W. Va.	3.3	3.3	3.7	3.9	4.3	4.7	5.0	4.7	4.1	4.3	3.8	+24
Wichita, Kans.[3]	7.2	7.6	8.0	8.1	8.4	8.6	8.7	8.6	6.7	7.5	8.2	+ 5
Worcester, Mass.	2.7	2.7	2.9	3.0	3.1	2.9	3.1	3.4	4.2	4.1	3.5	- 3

Source: Department of Labor. [1] Not available. [2] Includes a small number of employees in mining. [3] Revised series; not strictly comparable with previously published data.

Chart 15.

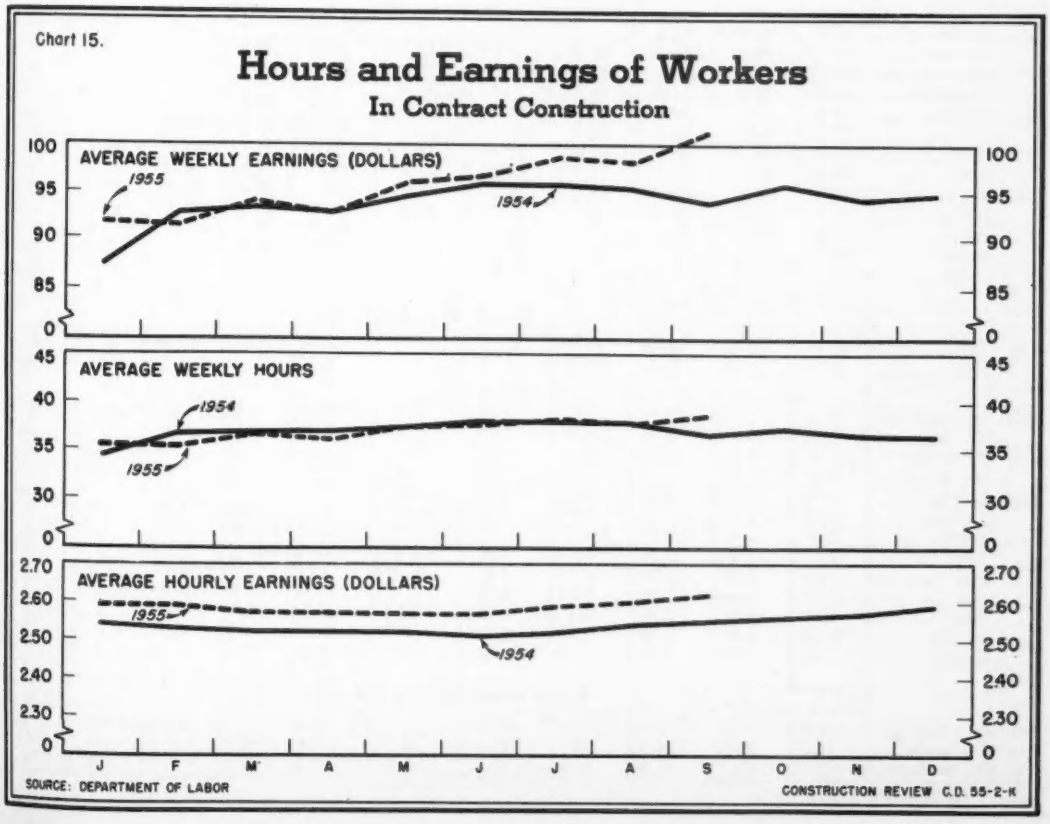


Table 40.--Contract Construction: Hours and Gross Earnings of Construction Workers

Period	All construction	Building construction							Nonbuilding construction		
		All building contractors	General contractors	Special trades contractors					All nonbuilding	Highway and street	Other nonbuilding
				All special trades	Plumbing and heating	Painting and decorating	Electrical work	Other trades			
	AVERAGE WEEKLY EARNINGS										
Year: 1953	$91.61	$91.76	$87.75	$94.79	$98.30	$87.10	$111.61	$91.04	$90.27	$85.28	$93.85
1954	93.98	94.12	89.41	98.01	102.71	90.39	112.71	93.19	92.86	86.88	97.36
1954: September	93.84	94.32	89.00	98.10	102.92	92.57	110.08	94.08	92.97	88.75	96.33
October	95.74	96.26	91.62	99.46	103.63	92.75	115.05	94.87	94.13	86.62	100.53
November	94.32	94.15	89.61	97.02	100.10	90.37	112.18	93.90	94.30	88.94	98.55
December	94.28	95.40	90.83	98.28	107.20	91.12	113.30	91.77	89.47	80.51	96.08
1955: January	91.69	93.02	88.55	96.10	105.64	86.72	113.00	88.78	85.01	76.70	90.16
February	91.43	91.96	85.59	95.55	103.40	90.05	111.25	89.24	88.31	78.79	94.11
March	94.06	94.42	89.14	97.92	103.40	92.38	113.10	93.37	91.48	83.21	97.22
April	92.52	93.10	87.40	97.10	103.22	90.25	112.81	92.92	89.39	81.92	95.37
May	96.12	96.52	90.27	100.74	105.26	94.87	114.17	97.55	94.07	90.03	97.86
June	96.89	96.89	90.14	101.65	105.64	95.39	115.35	98.36	96.41	93.93	98.55
July	98.94	98.95	92.00	103.60	108.39	97.02	118.31	100.64	99.36	97.22	101.18
August	98.02	97.99	92.23	102.03	107.34	96.72	118.60	97.73	99.01	96.75	101.15
September	101.13	100.61	94.23	105.18	109.80	99.17	121.30	101.18	102.29	102.36	102.09
	AVERAGE WEEKLY HOURS										
Year: 1953	37.7	37.0	37.5	36.6	38.1	34.7	39.3	35.7	40.3	41.2	39.6
1954	37.0	36.2	36.2	36.3	37.9	34.5	38.6	35.3	40.2	40.6	39.9
1954: September	36.8	36.0	35.6	36.2	37.7	34.8	37.7	35.5	39.9	40.9	39.0
October	37.4	36.6	36.5	36.7	38.1	35.0	39.0	35.8	40.4	40.1	40.7
November	36.7	35.8	35.7	35.8	36.8	34.1	37.9	35.3	40.3	40.8	39.9
December	36.4	36.0	35.9	36.0	38.7	34.0	38.8	34.5	38.4	37.8	38.9
1955: January	35.4	35.1	35.0	35.2	38.0	32.6	38.7	33.5	36.8	36.7	36.8
February	35.3	34.7	34.1	35.0	37.6	33.6	38.1	33.3	37.9	37.7	38.1
March	36.6	35.9	35.8	36.0	37.6	34.6	38.6	35.1	39.6	40.2	39.2
April	36.0	35.4	35.1	35.7	37.4	33.8	38.5	34.8	38.2	38.1	38.3
May	37.4	36.7	36.4	36.9	38.0	35.4	38.7	36.4	40.2	41.3	39.3
June	37.7	36.7	36.2	37.1	38.0	35.2	39.1	36.7	41.2	42.5	39.9
July	38.2	37.2	36.8	37.4	38.3	35.8	39.7	37.0	42.1	43.4	40.8
August	37.7	36.7	36.6	36.7	38.2	35.3	39.8	35.8	41.6	43.0	40.3
September	38.6	37.4	37.1	37.7	38.8	35.8	39.9	37.2	42.8	44.7	41.0
	AVERAGE HOURLY EARNINGS										
Year: 1953	$2.43	$2.48	$2.34	$2.59	$2.58	$2.51	$2.84	$2.55	$2.24	$2.07	$2.37
1954	2.54	2.60	2.47	2.70	2.71	2.62	2.92	2.64	2.31	2.14	2.44
1954: September	2.55	2.62	2.50	2.71	2.73	2.66	2.92	2.65	2.33	2.17	2.47
October	2.56	2.63	2.51	2.71	2.72	2.65	2.95	2.65	2.33	2.16	2.47
November	2.57	2.63	2.51	2.71	2.72	2.65	2.96	2.66	2.34	2.18	2.47
December	2.59	2.65	2.53	2.73	2.77	2.68	2.92	2.66	2.33	2.13	2.47
1955: January	2.59	2.65	2.53	2.73	2.78	2.66	2.92	2.65	2.31	2.09	2.45
February	2.59	2.65	2.51	2.73	2.75	2.68	2.92	2.68	2.33	2.09	2.47
March	2.57	2.63	2.49	2.72	2.75	2.67	2.93	2.66	2.31	2.07	2.48
April	2.57	2.63	2.49	2.72	2.76	2.67	2.93	2.67	2.34	2.15	2.49
May	2.57	2.63	2.48	2.73	2.77	2.68	2.95	2.68	2.34	2.18	2.49
June	2.57	2.64	2.49	2.74	2.78	2.71	2.95	2.68	2.34	2.21	2.47
July	2.59	2.66	2.50	2.77	2.83	2.71	2.98	2.72	2.36	2.24	2.48
August	2.60	2.67	2.52	2.78	2.81	2.74	2.98	2.73	2.38	2.25	2.51
September	2.62	2.69	2.54	2.79	2.83	2.77	3.04	2.72	2.39	2.29	2.49
	Percent change, September 1954 to 1955										
Avg. wkly. earnings	+7.8	+6.7	+5.9	+7.2	+6.7	+7.1	+10.2	+7.5	+10.0	+15.3	+6.0
Avg. wkly. hours	+4.9	+3.9	+4.2	+4.1	+2.9	+2.9	+ 5.8	+4.8	+ 7.3	+ 9.3	+5.1
Avg. hrly. earnings	+2.7	+2.7	+1.6	+3.0	+3.7	+4.1	+ 4.1	+2.6	+ 2.6	+ 5.5	+ .8

Source: Department of Labor.

FHA Housing Credit Regulations Eased on Home Rehabilitation (Sec. 220), Home Relocation (Sec. 221), and Servicemen's Mortgage (Sec. 222) Insurance. (Federal Register, Vol. 20, No. 217, November 5, 1955, p. 8330; Vol. 20, No. 221, November 11, 1955, p. 8454; and Vol. 20, No. 223, November 16, 1955, pp. 8498-8499.)

In November 1955, the Federal Housing Administration amended its regulations, by removing the 2 percent additional downpayment imposed July 30, 1955 (see pp. 53-54, August 1955 issue of Construction Review), on (a) 1- to 11-family dwellings under Sec. 220 of the National Housing Act--Rehabilitation and Neighborhood Housing Insurance; (b) Sec. 221 low-cost rental or purchase housing for families displaced as a result of governmental action in a community which has a workable urban renewal program; and (c) Sec. 222 housing for servicemen on active duty for more than 2 years.

For loans under Sec. 220, the amended directive permits a minimum downpayment, exclusive of closing costs, of 5 percent (10 percent for existing structures) of the first $9,000 of the FHA's estimate of the replacement cost* of the property, plus 25 percent of the amount above $9,000, when the mortgagor is the owner-occupant. When the mortgagor is not the owner-occupant, the maximum amount that can be mortgaged is 85 percent of the mortgage loan amount available to the owner-occupant. Under Sec. 221, the downpayment for the owner-occupant now is 5 percent of the entire appraised value, and 15 percent for the operative-builder-borrower. For all mortgagors under Sec. 222, the downpayment required is 5 percent of the appraised value.

In addition, for houses financed under Secs. 220 and 221, the mortgage term was extended from 25 to 30 years. However, servicemen buying homes under Sec. 222 will still have to pay off their mortgage within 25 years, as ordered last July.

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* In the Housing Amendments of 1955 (Public Law 345, 84th Congress), "estimated replacement cost" was substituted for "appraised value" as the basis for FHA insurance under the urban renewal (Sec. 220) and the cooperative housing (Sec. 213) programs.

EXPLANATORY NOTES

Construction Review brings together under one cover virtually all of the Government's current statistics that pertain to construction. Published jointly by the U. S. Department of Commerce and the U. S. Department of Labor, this monthly report is designed to serve the wide variety of groups and individuals among businessmen, government officials, legislators, labor unions, research workers, and the general public who need a convenient reference to the many facets by which current trends in construction may be gaged.

The various measures of construction are shown in detail wherever possible, by type of construction, trade, or material, and in addition, by location. The Index to statistical tables is a guide to the detail provided by each tabulation.

Most of the statistical series shown are prepared separately or jointly by the two agencies responsible for this publication. The remainder, specifically accredited, originate in other governmental agencies or are contributed by private organizations. [1]

Almost all the statistics are presented on a monthly basis; the rest, quarterly. Except where noted, all data relate to the continental United States.

DEFINITION OF THE SERIES

Part I--Construction Put in Place. Construction, for the purpose of this series, is defined to include the engineering, design, and production of all fixed works and structures. Only new construction, including major additions and alterations, is covered; maintenance and repair work is excluded. The estimates cover buildings; other structures such as dams, levees, and bridges; and nonstructural works such as airfields, highways, canals, and navigation channels. They include the installed value of equipment generally considered an integral part of a structure and commonly included in the contract price, such as plumbing, heating, and air conditioning equipment and elevators. They exclude separable equipment, such as production machinery, power-generating equipment, and furnishings.

Clearing and development of land is included. If, however, an existing structure is demolished in the process, the demolition itself is excluded. Excluded also are oil, gas, and water well drilling; the digging and shoring of mines; and work which is an integral part of farming operations such as plowing, terracing, and the digging of drainage ditches.

Value of construction includes the cost of architectural and engineering fees, land development costs, material and equipment installed, labor, overhead, and profit on construction operations, but not speculative profits. Also included are the value of force-account work (construction done, not through a contractor, but directly by a business or government agency using a separate work force to perform nonmaintenance construction on the agency's own properties), as well as the value of work done by owners or their families on their own homes, farm buildings, and the like.

Estimates of the value of construction measure the value of work put in place on all structures and facilities under construction during a given period regardless of when work on each individual project was started.

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[1] The private contributors are as follows: American Appraisal Co. (525 E. Michigan St., Milwaukee 2, Wis.), Associated General Contractors of America, Inc. (329 E St., N. W., Washington 4, D. C.), E. H. Boeckh and Associates (1406 M St., N. W., Washington 5, D. C.), and the Engineering News-Record (330 W. 42nd St., New York 36, N. Y.), which provide this bulletin with construction cost indexes; the F. W. Dodge Corporation (119 W. 40th St., New York, N. Y.), which provides contract award values for the 37 eastern States; and the following private associations whose materials production, shipments, and other statistics on materials are published here: American Institute of Steel Construction (101 Park Ave., New York 17, N. Y.), American Iron and Steel Institute (350 Fifth Ave., New York 1, N. Y.), Douglas Fir Plywood Association (Tacoma Bldg., Tacoma 2, Wash.), National Electric Manufacturers Association (155 E. 44th St., New York 17, N.Y.), National Lumber Manufacturers Association (1319 18th St., N. W., Washington 6, D. C.), and National Wood Work Manufacturers Association (332 S. Michigan Avenue, Chicago 4, Ill.).

Federally owned construction covers all projects financed exclusively with Federal funds, whether the work is done by force-account or by private contractors. State and locally owned construction, which also covers both force-account and private-contract work, includes projects financed entirely by State and local governments, as well as projects financed in part by the Federal Government under grants-in-aid programs. Thus, the value figures for State and locally owned construction include the funds obtained from all three levels of government--Federal, State, and local. For the most part, the types of projects involving both Federal and State or local government monies are highways, airfields, schools, hospitals, and sewage-disposal and water-supply facilities.

Part II--New Housing. The housing series in this report cover only permanent and housekeeping dwelling units, which are defined as dwelling places containing permanent cooking facilities, or the minimum built-in facilities essential to housekeeping.

The series on the number of new permanent nonfarm dwelling units started, widely known as housing starts, includes prefabricated housing (if permanent), but excludes conversions (which are not new dwelling units) and hotel, dormitory accommodations, and military barracks (none of which are housekeeping dwellings). Excluded also are all temporary dwelling units, such as trailers, sheds, and shacks, as well as all farm housing.

The housing starts estimates are based on local building permits issued (adjusted for canceled permits and for lag between permit issuance and start of construction) and public contracts awarded, plus a field count of units started in a sample of nonpermit-issuing places.

Construction is said to have started when excavation work for the basement or the foundation of the structure has commenced.

This series was revised beginning with data for January 1954. The new series presents statistics for the 4 broad Census regions (Northeast, North Central, South, and West) and for the metropolitan, as compared with the nonmetropolitan segment of the country. Estimates by metropolitan-nonmetropolitan location have been carried back on a monthly basis through January 1953, and on an annual basis through 1950.

These geographic data replace the urban-rural classification used previously. Also, rental-type units in the new series are classified as 2-4 family and 5-or-more family structures, compared with the former classification of 2-family and 3-or-more family structures.

Construction cost data shown here represent the average of builders' estimates of the construction cost of all new private 1-family houses started nationally. The construction cost averages are affected by variations in size and design of the houses, in the size and type of projects started, and differences in construction methods, as well as changes in cost of materials and labor. They do not represent the construction cost of a typical house, and should not be confused with selling price or permit valuation.

The cost data are based primarily on builders' estimates of construction cost as shown on the building permit, and on reports of construction cost by individual construction contractors in a representative group of localities not issuing permits. Building-permit information is adjusted for the general understatement of costs shown on permit applications.

The construction cost figures cover the cost of labor, materials, and subcontracted work, and that part of the builders' overhead and profit chargeable directly to the building of the houses. Included are the costs of equipment which becomes an integral part of the structure and is essential to its general use. Excluded are the costs of land, site improvement, architectural and engineering fees, and sales profits.

While the series on total nonfarm dwelling units started, as well as the series on units started under FHA and VA programs, cover new housing only, as distinguished from converted or existing housing, the statistics on nonfarm mortgage recordings of $20,000 or less refer to both new and existing structures. Furthermore, the latter series covers all types of building construction, but resi-

dential building accounts for the larger proportion of these mortgage recordings.

Part III--Building Permits. The statistics on building construction authorized by local building permits, beginning with data for January 1954, measure building activity in all localities having building-permit systems--rural nonfarm as well as urban. Such localities (over 7,000) include about 80 percent of the total nonfarm population of the country, according to the 1950 Census.

The building-construction data cover federally as well as nonfederally owned projects. Figures on the amount of construction contracts awarded for Federal projects and for public housing (Federal, State, and local) in permit-issuing places are added to the valuation data (estimated cost entered by builders on building-permit applications) for privately owned projects; construction undertaken by State and local governments is reported by local officials.

No adjustment has been made in the building-permit data to reflect the fact that permit valuations generally understate the actual cost of construction, nor for lapsed permits or the lag between permit issuance or contract-award dates and start of construction. Therefore, they should not be considered as representing the volume of building construction started.

Statistics shown in this report for the total metropolitan area of the country represent the 168 Standard Metropolitan Areas used in the 1950 Census. Data for individual metropolitan areas (which were selected from those for which building-permit coverage is complete or virtually complete) include an estimate for non-permit-issuing places in each area.

Permit valuation figures do not include the costs of (1) demolishing or moving buildings, (2) nonbuilding construction (e.g., streets and highways, pipelines, water and sewer systems, etc.), or (3) land, land development, and architectural and engineering fees.

The builders' estimates of cost as reported on the building permit, basically include the value of labor and materials involved. However, because of differences in requirements, administration, and enforcement among the many local permit systems covered in this series, and variations in how individuals report, precise information is lacking regarding the extent to which the cost of service facilities essential to the general use of the building, or builders' overhead and profit, are included.

Dwelling units are defined the same for the building-permit series as for the series presented in Part II (New Housing) of this report. The nonhousekeeping residential building shown here is comprised of such structures as hotels, dormitories, tourist cabins, and clubs and association buildings with bedrooms.

Part IV--Contract Awards. The value of contracts awarded represents the amount of the construction contracts let during a given period of time for new construction, including major additions and alterations. Maintenance and repair work is not covered. As in the "construction put in place" series, equipment which becomes an integral part of structures and is essential to their general use is included, as well as costs of land development, materials, labor, and contractors' overhead and profit on construction operations. Similarly, the value of Federal force-account work is also included, but the cost of land and separable equipment are excluded. However, unlike the construction put in place series, the statistics on contracts awarded exclude architectural and engineering fees and non-Federal force-account work, but include a small amount of demolition work when it is part of the overall contract for new construction.

Figures on federally owned projects are compiled from notifications of construction contracts awarded, obtained from other Federal agencies. Data on non-Federal construction are obtained from records compiled by the F. W. Dodge Corporation, for the 37 States east of the Rocky Mountains. For the remaining States, they are based on reports from local building-permit officials, augmented by reports on construction contract awards which appear in a number of construction trade periodicals. Inquiries about the Dodge contract-award series may be addressed directly to that company.

Part V--Costs. The Department of Commerce composite construction cost index is a combination of various cost indexes (prepared by private organizations and other government agencies), weighted monthly by the current relative importance of the major classes of construction shown in the series on construction put in place. It is, therefore, the equivalent of a variable weighted indicator, reflecting monthly changes not only in the component indexes, but also in the relative importance of the major classes of construction which are used as weights.

The individual private indexes reported monthly by the American Appraisal Company, Associated General Contractors, E. H. Boeckh and Associates, and the Engineering News-Record are computed from quotations for a designated bill of materials and a specified amount of labor. The indexes differ as to the amounts and kinds of materials and labor measured, geographic coverage, and the extent to which adjustments are made for variations in labor efficiency, overhead and other factors affecting construction costs.

Cost indexes applicable to particular locations and special types of construction may be obtained from most of these compilers.

All materials usually incorporated into buildings by the general contractor, or his subcontractors, are covered in the index of wholesale prices of building materials. Specifically excluded are consumer durable goods such as kitchen ranges, refrigerators, and air-conditioning equipment. Goods of constant quality are priced from period to period, so that the index measures the effect only of price, rather than of quality change. "Wholesale" refers to sales in large lots, at primary market levels.

The series was revised, beginning with the January 1952 index, to include the pricing of additional materials, a different weighting pattern, and a change in the pricing period. The revised index, based on 1947-49=100, is the "official" wholesale price index of the Federal Government for January 1952 and all subsequent months; the indexes previously published on the base 1926=100 are the official price indexes for December 1951 and all earlier dates. The index presented here for the year 1951 on a 1947-49=100 base is taken from a "linked" series, calculated solely for analytical purposes, and does not supersede the former index (1926=100) as the official series for that year.

Union wage scales are the minimum wage rates agreed upon through collective bargaining between employers and trade unions. Overtime beyond the negotiated maximum daily and weekly hours is excluded. In addition, the scales do not reflect either rates for apprentices or premium rates paid for special qualifications or other reasons.

Part VI--Materials. The Indexes of Construction Materials Output provide measures of production or shipments for ten groups of construction materials, and are based on the output of 43 selected materials. Monthly indexes are provided for eight groups of materials, quarterly indexes for the other two groups, and annual levels are given for all groups.

In computing the indexes, the current monthly or quarterly unit production or shipments data are converted to aggregate values by multiplying 1947-49 average prices at the mills, factories, or plants. The base period aggregate values (1947-49 monthly average = 100) are derived by multiplying 1947-49 monthly average output by the 1947 average factory, mill, or plant price. By the use of varying physical quantities, and constant prices, the group indexes represent physical quantity measures. The trend lines appearing on the charts are derived from the group indexes by removing the month-to-month fluctuations resulting from seasonal and erratic factors. The lines are 12-month moving averages centered on the seventh month, with each calendar year centered on July. Projections for the last 6 months are made by using the current data adjusted for the seasonal movements appearing during the period 1952-54, and smoothed by a 3-month moving average.

Part VII--Employment. Data on employment in contract construction cover all employees of construction firms who worked during, or received pay for, the payroll period ending nearest the 15th of the month, regardless of the type of

work performed. Only firms engaged in the construction business on a contract basis for others are included, but such firms pursue all kinds of construction activities--new work, alterations, demolitions, maintenance, and repairs. Excluded are self-employed construction workers, working proprietors, and force-account employees of non-construction firms and public agencies engaged in construction activities.

The hours and earnings estimates relate only to nonsupervisory construction workers and working foremen. All such workers, regardless of skill, are included if they are engaged in any way in contract construction activities (on either privately or publicly owned projects).

The earnings statistics shown are gross earnings before deductions for old-age and unemployment insurance, withholding tax, bonds, and union dues. Gross earnings include the workers' base pay, premium pay for overtime and for bonuses, and pay for sick leave, holidays, and vacations taken, but such items as employer contributions to welfare funds, and to insurance or pension plans, are excluded.

The indexes of weekly man-hours in contract construction are a composite measure of the trends in construction-worker employment and average weekly hours. They provide a more meaningful measure of contract-construction activity than the employment or average weekly hours series alone, since the volume of work done is dependent upon both the number of workers employed and the length of their workweek.

The foregoing employment and earnings series are based upon reports from individual contracting establishments; these reports do not contain the detail necessary to separate employment according to the kind of construction work performed, as reported in the tables on labor requirements for new construction. To yield this information, the figures on the value of new construction (see the tables on new construction put in place) are converted into estimated man-months of work, using a factor representing the value of work put in place per man-hour. This factor relates to different time periods and is based on diverse sources, according to the type of work. For most types of work, no adjustment is made for productivity. Therefore, although the series provides a suitable general measure of labor requirements, it cannot be used to gage changes in productivity.

The labor requirement figures derived by this method are not employment figures in the same sense as those developed from employment reports. They are, instead, an approximate measurement, in terms of number of full-time workers, of the labor required to put in place the dollar volume of new construction reported for the specified period.

Since the basic data (dollar volume) cover the entire value of the work put in place, all the labor charged to the construction is included--wage and salaried employees, in addition to the working proprietors, self-employed, and employees of operative builders. Furthermore, force-account work, which is excluded from data on employment by construction contractors, is included in the labor requirement series. Also, contractors' employees may work on all kinds of construction work--demolitions, or repair and maintenance projects, as well as new construction--but the figures on labor requirements have been developed for new projects only.

Information shown in this report on apprentices in the building trades applies only to registered apprentices. A registered apprentice is defined as an employee who, under an expressed or implied agreement for a stipulated term, receives instruction in a registered apprenticeship system, and concerning whom a recognized apprenticeship agency has on record all the information it requires.

The apprenticeship data are obtained from local apprenticeship committees, trade unions, employers' associations, and building trades councils, by field representatives of the Federal Government and cooperating State Apprenticeship Agencies. Occupational classifications are based on descriptions in the Dictionary of Occupational Titles (Washington, U. S. Employment Service, 2d Ed., 1949). For the purposes of the tabulation presented here, three classifica-

tions--brick, stone, and tile workers; cement masons; and plasterers--have been combined into one group, the trowel trades.

SELECTED REFERENCES

Descriptions of the techniques of compiling most of the series included, as well as related explanatory information and historical statistics are contained in the following selected group of Government publications. Starred (*) items may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at the prices shown. The remainder listed below are available upon request to the agency responsible for the publications, unless otherwise indicated.

*Business Statistics: A Supplement to the Survey of Current Business. 1953 Biennial Edition. U. S. Department of Commerce, Office of Business Economics. $1.00.

Construction Volume and Costs, 1915-54. May be obtained from Bureau of Labor Statistics Regional Offices or Department of Commerce Field Offices (see inside front cover of Construction Review for addresses), or from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price, 50 cents.

Construction Cost Indexes, BLS Report No. 73, November 1954. U. S. Department of Labor, Bureau of Labor Statistics, Washington 25, D. C.

*Construction During Five Decades, Historical Statistics, 1915-52. BLS Bulletin No. 1146. U. S. Department of Labor, Bureau of Labor Statistics. 45 cents.

*Employment and Earnings. Monthly. U. S. Department of Labor, Bureau of Labor Statistics. Subscription price: $3.50 domestic; $4.50 foreign. Single copies vary in price.

*Employment and Earnings. Annual Supplement Issue. May 1955. U. S. Department of Labor, Bureau of Labor Statistics, Washington 25, D. C.

*Seventh Annual Report-Housing and Home Finance Agency. Calendar Year 1953. Housing and Home Finance Agency. $1.25.

Housing Statistics. Special Year-end Issue with Annual Statistics. January 1955. Housing and Home Finance Agency, Division of Housing Research, Washington 25, D. C.

New Construction Expenditures, 1915-51: Labor Requirements 1939-51. U. S. Department of Labor, Bureau of Labor Statistics, Division of Construction Statistics, Washington 25, D. C.

*Techniques of Preparing Major BLS Statistical Series, BLS Bulletin 1168, U. S. Department of Labor, Bureau of Labor Statistics. 60 cents.

Chapter II--Estimating National Housing Volume
Chapter III--Estimating Expenditures for New Construction
Chapter IV--Labor Required for New Construction
Chapter VI--Measurement of Industrial Employment
Chapter VII--Hours and Earnings in Nonagricultural Industries
Chapter X--Wholesale Price Indexes
Chapter XII--Studies of Occupational Wages and Supplementary Benefits

*Union Wages and Hours: Building Trades, July 1, 1954. BLS Bulletin 1175. U. S. Department of Labor, Bureau of Labor Statistics. 30 cents.

"Revised Wholesale Price Index of Building Materials," Construction, March 1952, pp. 3-8. U. S. Department of Labor, Bureau of Labor Statistics. Division of Construction Statistics, Washington 25, D. C.

"A Description of the Revised Wholesale Price Index." Serial No. R.2067. Monthly Labor Review, Feb. 1952. U. S. Department of Labor, Bureau of Labor Statistics, Washington 25, D. C.

*Wholesale Prices, 1951 and 1952. BLS Bulletin 1143. U. S. Department of Labor, Bureau of Labor Statistics. 30 cents.

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